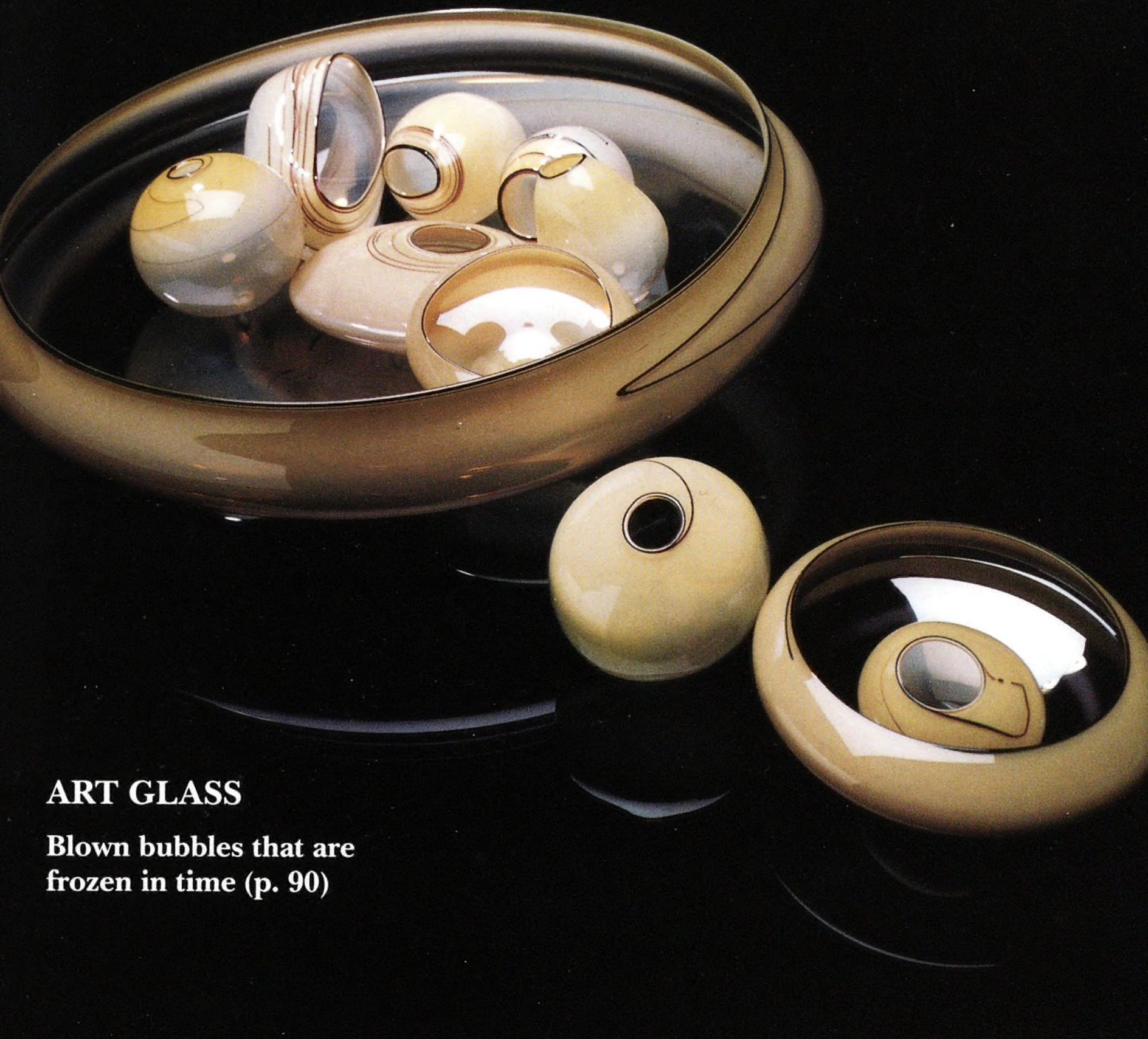
Smithsonian

February 1992



ART GLASS

Blown bubbles that are frozen in time (p. 90)

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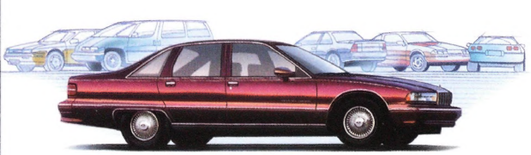

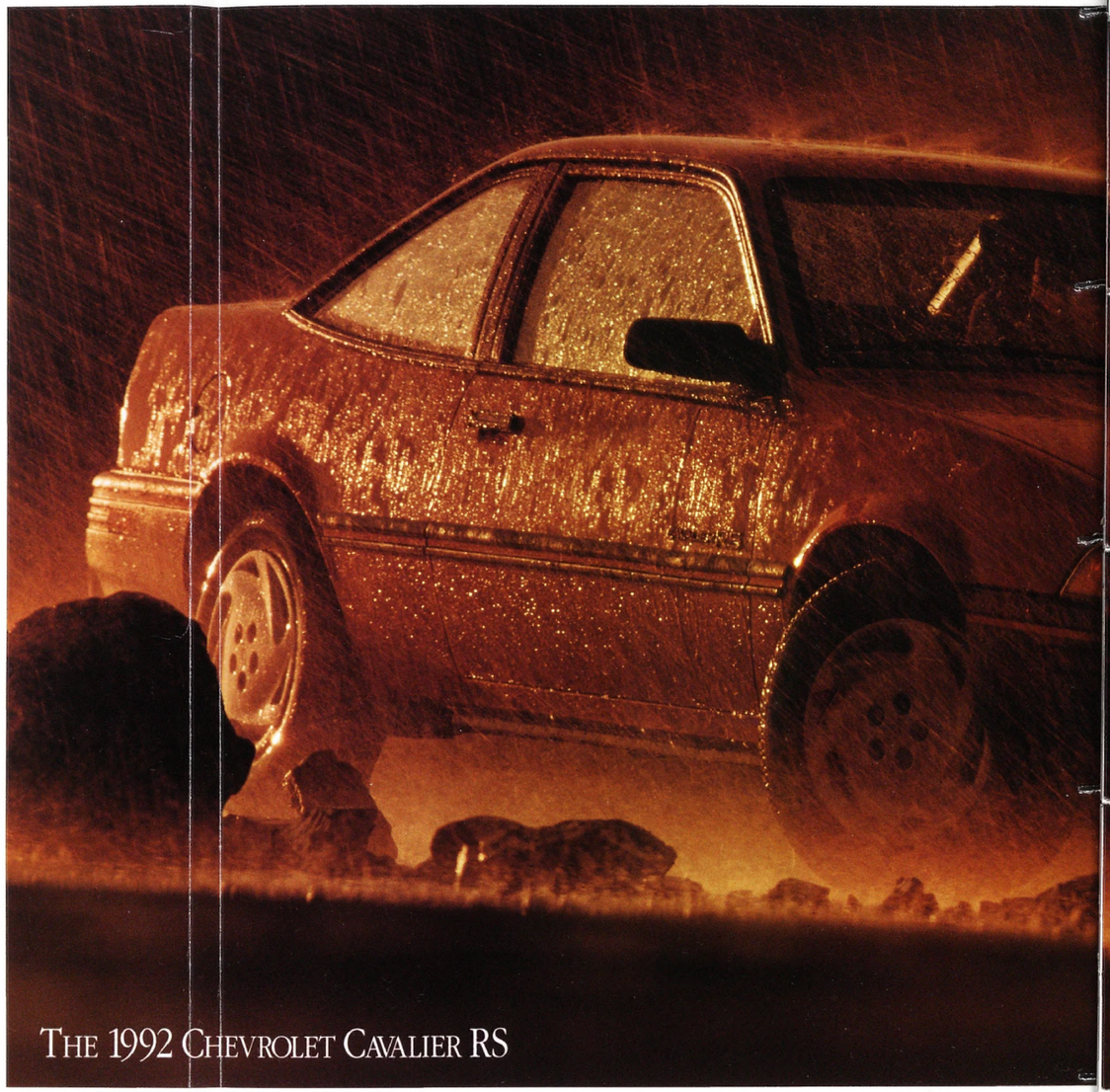

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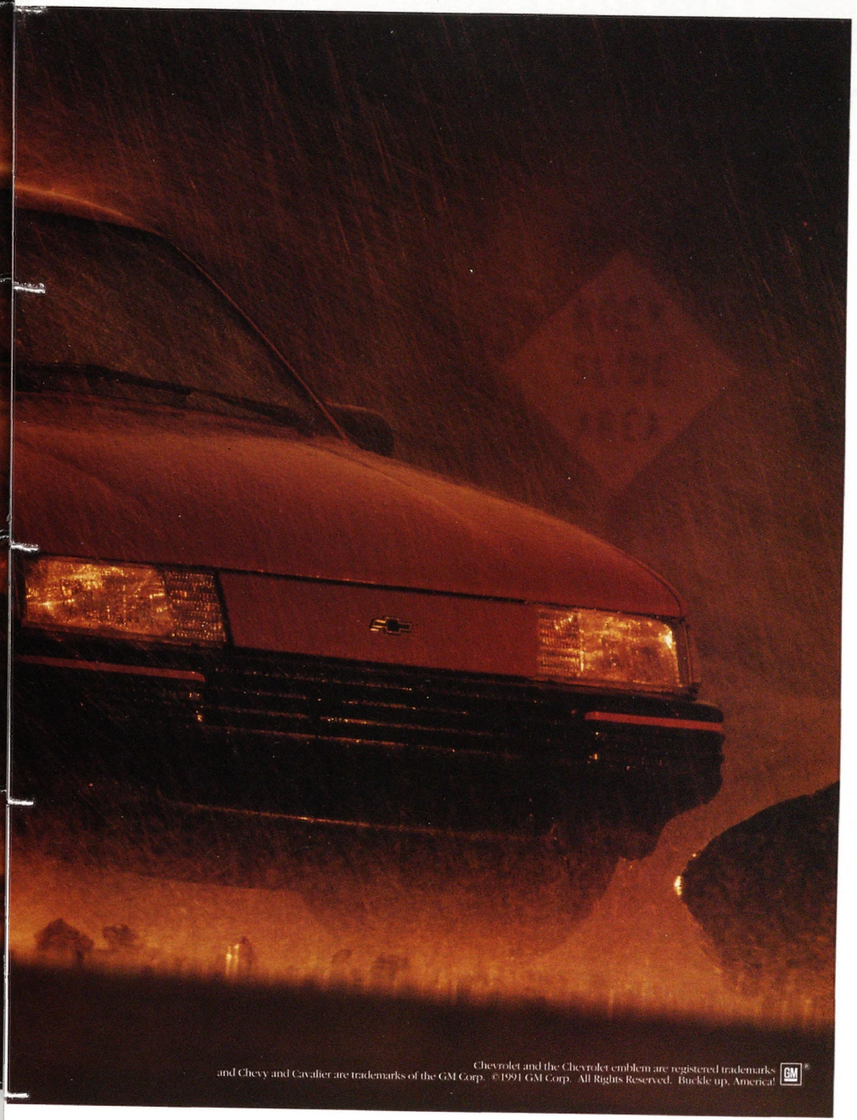

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February 1992

Smithsonian

Volume 22, Number 11

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Photograph by Roger Schreiber

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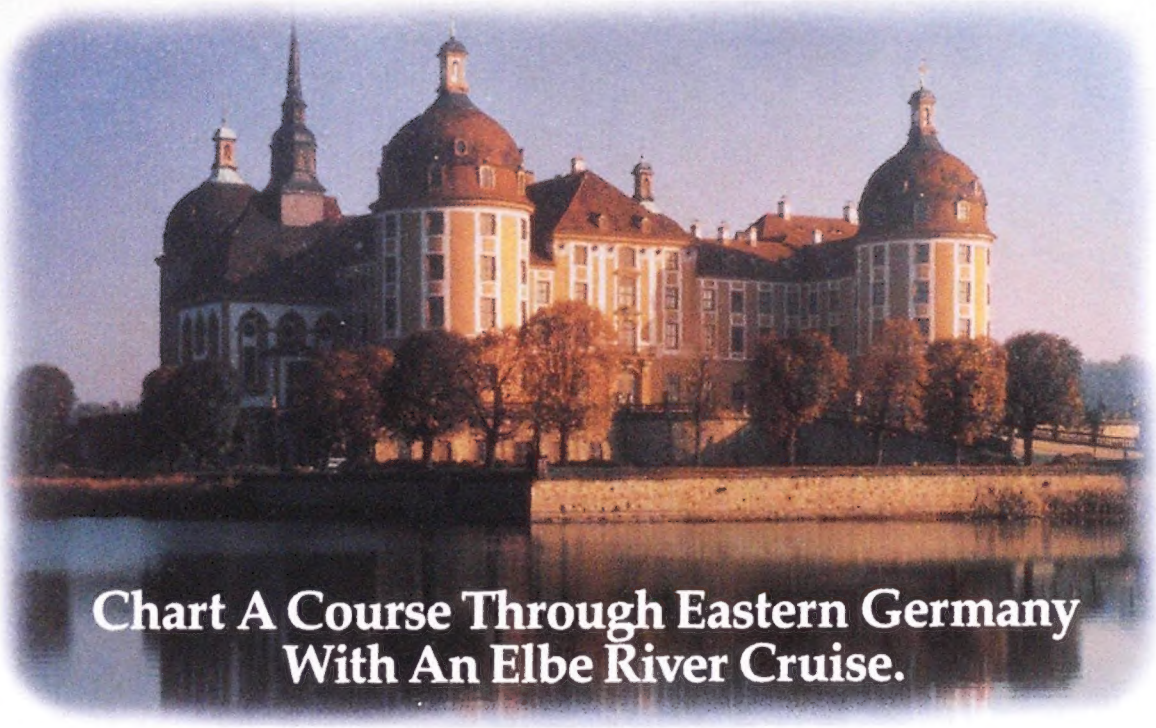

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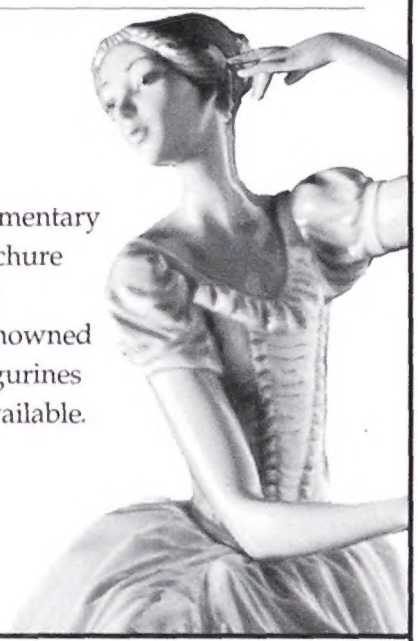

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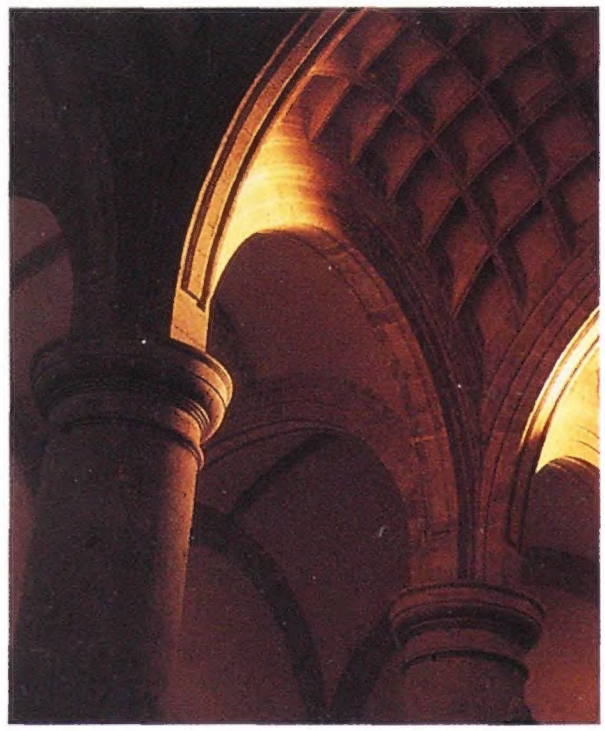

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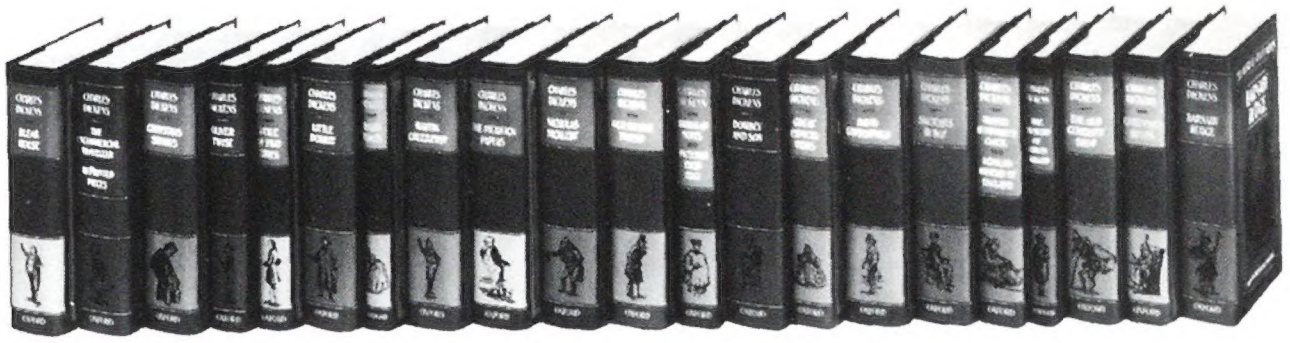

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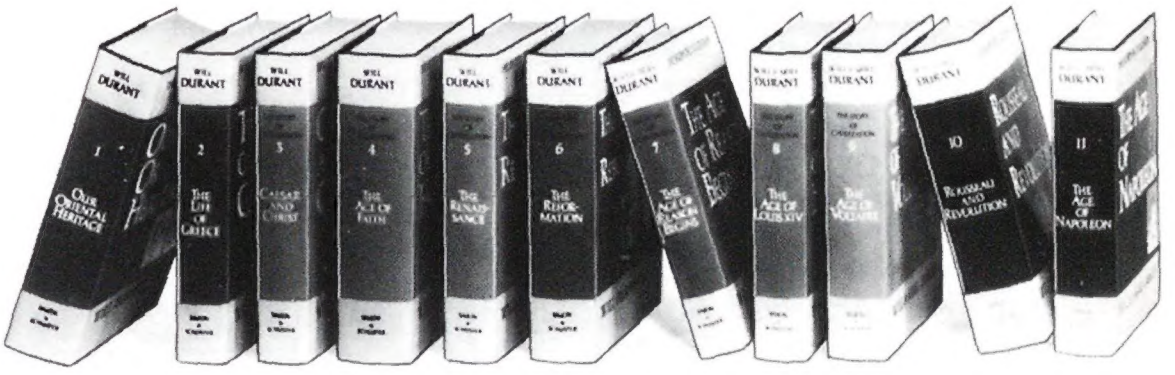
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Secretary Adams' comments

Smithsonian horizons

What should be our stance toward the emergent independent states that once composed the monolithic USSR?

Moscow in early December was deceptively springlike, only slightly mitigating a popular atmosphere of hardship, bitterness and bewilderment. Unmourned by most of its subjects, an old empire that had become the frozen embodiment of a great secular heresy was helplessly spinning into fragments. My brief presence there was connected with the final international ceremony organized by the dying central government's Ministry of Culture, the 500th anniversary of the faceted hall of the Kremlin.

This was a heterogeneous gathering of international emissaries, art and conservation authorities, bearded patriarchs, and phalanxes of soon-to-be-pruned bureaucrats, assembled in the splendidly colorful throne room of the czars. It served as a reminder, no doubt intentional, of historic treasures and past glories that were dismayingly adrift in a new sea of uncertainty.

Adding eloquent detail as they joined in Minister Nikolay Gubenko's appeal for international assistance to stave off a crisis were directors of the great Moscow and St. Petersburg museums. More surprising were confirmations of support from representatives of nascent ministries of culture in a number of soon-to-be-independent republics. Their presence was, to be sure, an implicit acknowledgment by the center that a transition—one might better say a revolutionary breakup—was under way.

At least in the short run, however, the foreign contingent had little to offer in response. An obvious and major deterrent was the worldwide climate of economic recession, translating itself everywhere into new national priorities that take greater account of domestic needs. But no less important was a recognition of the immensity of ongoing changes, and their highly uncertain outcomes. Many in this group had dedicated their lives to the historic contributions of Russian civilization. But they probably had difficulty in seeing how to advance their pawns toward its cultural preservation while all the other, more powerful, pieces on the chessboard were in chaotic motion.

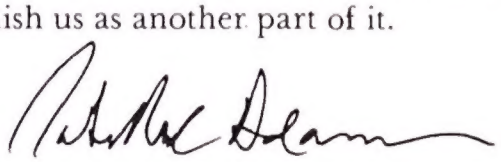
The scale and variety of assistance that will be needed does, in fact, boggle the mind. Governments, our own included, naturally focus in the first instance on meeting fundamental needs for food and medicine. Entailed in those efforts will be many government-to-government understandings, among them an insistence on a reduction in military remnants of the Cold War, the building of political and democratic legitimacy, and the encouragement of free-market forces. But for now, whether any of even those basic ends can be achieved is beyond reckoning. The prospect for a massive breakdown in the most rudimentary delivery of supplies and services is at least as large.

What then should be the attitude of the world community toward supposedly second-order needs like the preservation of a cultural heritage? Only an extreme ideologue would be likely to argue that the accumulated treasures of a great state lose much of their significance when that state is swept out of history, and so might be dispersed if necessary to support the transition itself. Perhaps the new Commonwealth will at least find means to maintain a basic minimum of security and climate control within its great museums, so that any international role can be merely advisory and supplementary. I hope so.

But the subject of museums and art treasures only opens a Pandora's box of second-order needs, each with its rationales and constituencies. The Smithsonian, for example, has long had cordial and productive relations with the USSR Academy of Sciences, now regrouping on a substantially reduced scale under the auspices of the Russian Republic alone. Though parts of it were marred by political favoritism and bureaucratic rigidity, the Academy was unquestionably one of the powerhouses of world science, with first-rate achievements and researchers in many fields. Its laboratories and its pool of human talent represent another treasure and tradition that could only be accumulated over a long period by a great state.

Do we consider intervening to slow down or prevent the draining of this enormous reservoir of science? Can we justify passively awaiting the incalculable consequences of a worldwide diaspora of highly trained (many of them military) specialists? What stance can we take that will stimulate the Commonwealth of Independent States (a name that may well be superseded by the time this column appears) to take the fullest possible responsibility for its own destiny and seek international assistance only where that is most vital?

Such questions are easy to ask; it is only the answers that are difficult—the more so since our means are so limited. But for my part, the heritage of Russian science as well as culture is part of a progressively more interdependent world tradition. A loss to the whole will diminish us as another part of it.



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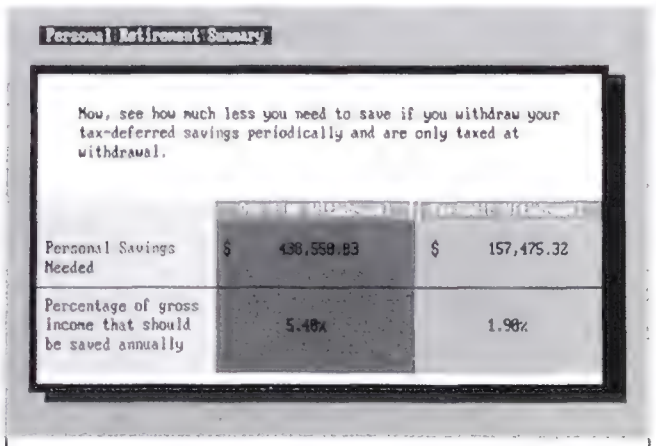
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Letters to the Editor

Columbus

Dear Sir: I take exception to Timothy Foote's December suggestion that Europeanized thought brought to the New World the blessing of rights for women. Among several native-American cultures, notably the Iroquois Confederation, the political and legal position of women far exceeded that in Europeanized America for generations to come. In many native-American cultures, a woman's right to leave or send away an abusive or unsatisfactory husband far exceeded that of her Europeanized counterparts. Ownership of household goods, dwellings, etcetera, was often vested in women, while under Europeanized American law the husband owned everything, including the clothes on his wife's back and their children.
Karen McKellips
Lawton, Oklahoma

Stuart Davis

Dear Sir: Davis was national secretary of the Artists' Congress, a large group of the best American artists, founded in the late 1930s. The Congress held only two or three meetings, in a rented theater in New York. Almost all the important artists of America at the time were present, filling the hall. Stuart Davis presided; a powerful personality, the role fitted him. Constantly smoking cigars, he looked like a big-business man rather than an artist.

During one meeting, Davis announced that Picasso, in Paris, was perhaps in grave danger from the Nazi occupation and that we should try to bring him to America. A telephone was brought in and Davis telephoned Picasso. They

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spoke, and then Davis informed the audience that Picasso sent greetings but would not ever come to America!

Joseph L. Cain
Kingston, Rhode Island

Dear Sir: In July 1956, I interviewed Stuart Davis in his spacious studio on Central Park West. It was sparsely furnished and incredibly neat, with every tool of the painter's craft in its proper place. The studio appeared a natural extension of the oversize canvas on an easel: precise, uncluttered, with each abstract plane so situated that a single change would alter the whole.

The studio had a 20-foot ceiling, and daylight poured in from windows at the second-story level, giving Davis an uninterrupted view of the sky but none of the street activity, the very cityscape that was his inspiration.

During my visit, a television set showed the huge Wanamaker's department store fire and other urban scenes. "That's my window to the world," the 63-year-old artist remarked, and I realized that his images of the city were funneled through the then relatively new medium of TV.

Bennard B. Perlman
Baltimore

Studebaker

Dear Sir: Our first car was a 1955 Studebaker Commander, given to us in 1969.

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Daniel and Marilyn Farren
Forestdale, Massachusetts

Dear Sir: Recently I had to part with a 1967 Avanti II, one of only 66 made that year. I assure you that Avanti Motors continued production in the oldest building in the Studebaker complex until 1987. Only then was it decided to move production to a new plant in Ohio.

Robert L. Booker
Cromwell, Indiana

Dear Sir: In 1946, I worked for Dana Corporation in Fort Wayne, Indiana, as their resident engineer; we manufactured the rear-axle assemblies for all Studebaker models. In early May of that year Studebaker began building its Champion. It was the first postwar new

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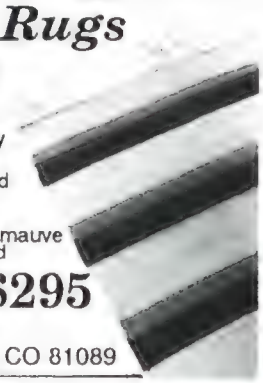

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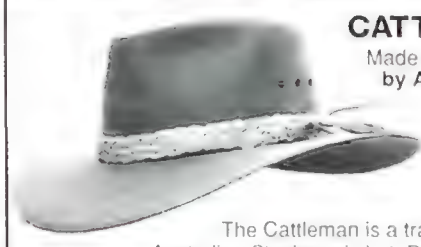

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design from a major company, and I was privileged to drive the very first one from South Bend to Fort Wayne, to make some engineering changes in the axle drive train. As I tooled along, the reaction of bystanders was incredible; it was the first new design anyone had seen in the past five years. Was I proud to be the driver!

Everett Weissbrodt
Fort Wayne, Indiana

Dear Sir: According to Harold O. Weight's *20 Mule Team Days in Death Valley*, the ten big 20-mule-team freighters that Pacific Coast Borax Company used, until 1888, to haul borax 160 miles from Mojave to Death Valley were designed by J.W.S. Perry. They were built in wagon works in Mojave Village by day laborers. Working in teams of two, the combined tonnage of these behemoths was the equivalent of a railroad freight car's.

There were earlier, smaller borax-hauling wagons, pulled by 20-ox teams, that carried smaller loads from Borax Lake to Mojave, about half the distance of the Death Valley-Mojave route.

Hal Skinner
Sebastopol, California

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would have been the nearest Pennsylvania stops—hardly convenient.
Henry J. Adamcik
Collingdale, Pennsylvania

Dear Sir: My most poignant memory of the Studie was my grandmother's 1922 Light Six, which I drove in the South Bend area in the 1930s as a teenager. Its wheels, with wooden spokes, made creaking noises in hot, dry, summer weather. Splashing a pail of water onto them provided effective, though temporary, noise abatement.
James A. Bock
Hinsdale, Illinois

Dear Sir: My father was a Studebaker/Erskine dealer in the 1920s and early '30s in Criders Corners, a tiny crossroads hamlet in Butler County, Pennsylvania. Dad and his pals would either pile into one auto and drive to South Bend or take the train, then hit the road back to southwestern Pennsylvania with cars on order. Given driving conditions in those days, every customer got a well-used car by the time it arrived in Criders Corners, some 400 miles from the factory.
Joyce M. Bessor
Zelienople, Pennsylvania

Dear Sir: Ulysses S. Grant left Ohio almost 20 years before he set up shopkeeping . . . in Galena, Illinois.
Jonathan Mitchell
Palm Springs

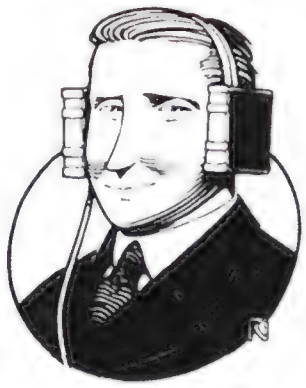
Pearl Harbor

Dear Sir: Our school's band and choir took a trip to Hawaii over spring break last year and visited Pearl Harbor.

Many of us had tears in our eyes when we gazed upon the wall of names and stared down at the skeletal remains of the sunken ship, a grave to sailors who were then the age our friends and siblings are now. This memorial enables all America to respect the men who died in that tragedy 50 years ago.
Adrianne Traxinger
Palatine, Illinois

Monk seals

Dear Sir: I joined the Flag Operations staff on the Midway Islands in early 1944. My one and only encounter with Kure's curious monk seals occurred when I reconnoitered the island by motor torpedo boat.



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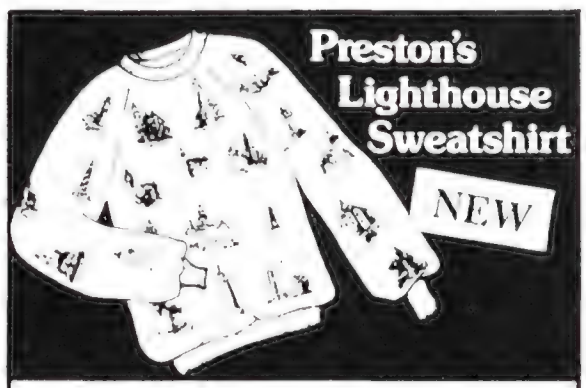

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Entering Kure lagoon through a narrow break in its south reef, we dropped anchor. As we were only 100 yards from the beach, the skipper was a trifle uneasy about the depth of water under his boat. Stripping down to my skivvies, I went over the side and reported two feet of water under the keel, then struck out for shore. When I touched bottom I found sharp coral under my bare feet and so crawled gingerly ashore on fingers and toes. At water's edge I came face to face with a young monk seal—only six inches from me. Though *I* was startled, the young seal calmly stared me in the eye and didn't budge. While I was lying alongside it, catching my breath, a giant sea turtle waddled up on the beach and joined us.

What I remember most was the absolute imperturbability of the monk seal and the curiously human aspect of its visage—I was almost tempted to talk to it. Maybe I did.

Duke Miller
Yucca Valley, California

Around the Mall

Dear Sir: Among the World War I air aces was Francesco Baracca, the Italian with 27 kills, who flew a Spad. Its insignia was a black stallion, rampant. Enzo Ferrari, who had been Baracca's mechanic, later founded the Ferrari auto company and adapted the insignia as the company logo.

G.A.G. Bianchini
Charlottesville, Virginia

Smithsonian horizons

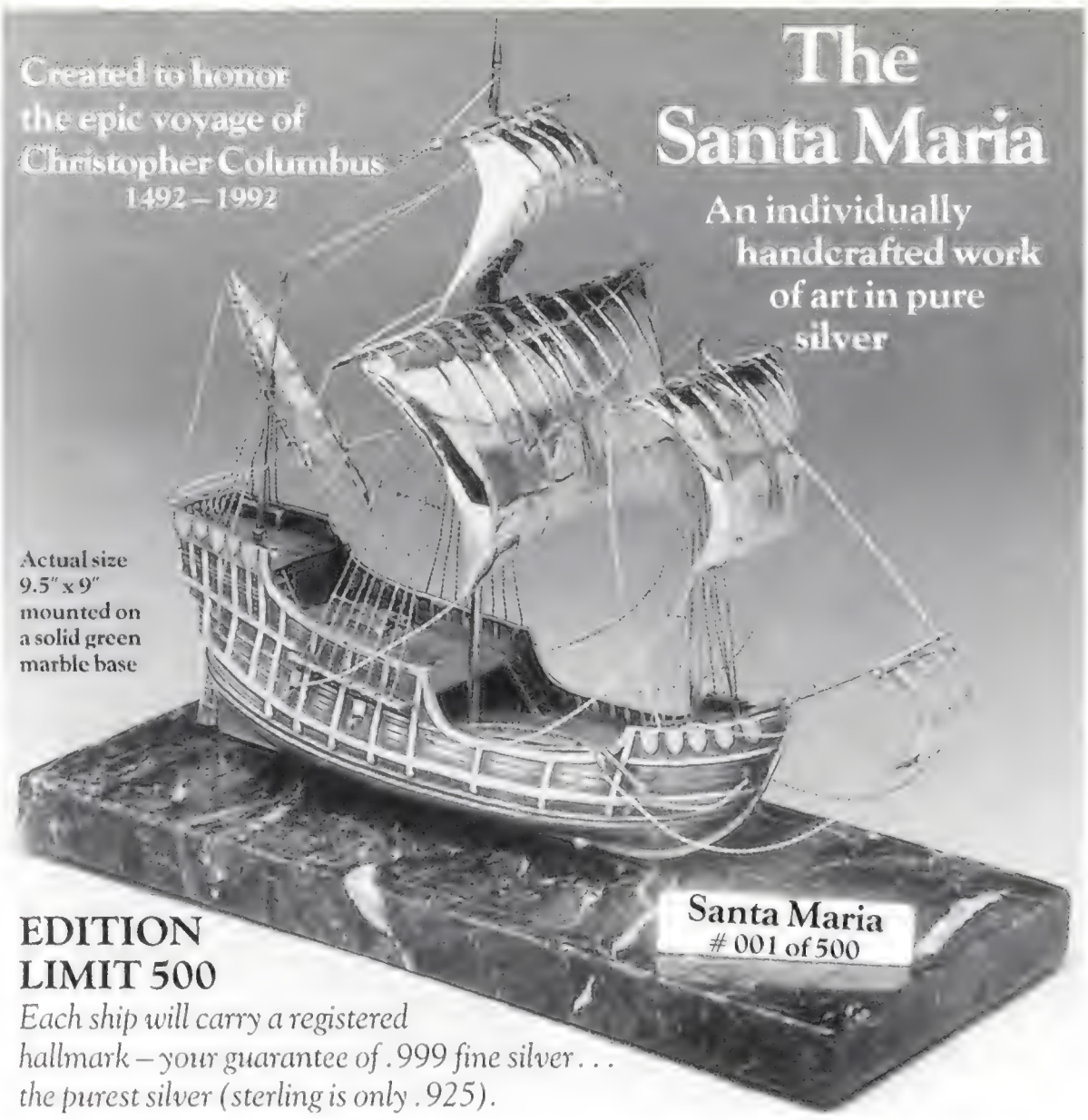
Dear Sir: Is the esteemed Erich Leinsdorf aware that the average American is a "lonely" listener to fine music recordings because concerts are no longer affordable? A concert at the John F. Kennedy Center for the Performing Arts is a major investment these days for an average family.

Donald D. Fowler
Alexandria, Virginia

Low-tech hi-fi

Dear Sir: I commiserate with Bruce Watson in his search for a low-tech hi-fi. I received a catalog from a store like the one he visited, and the only thing in it that I understood was "battery not included."

O. H. Matson
Chagrin Falls, Ohio



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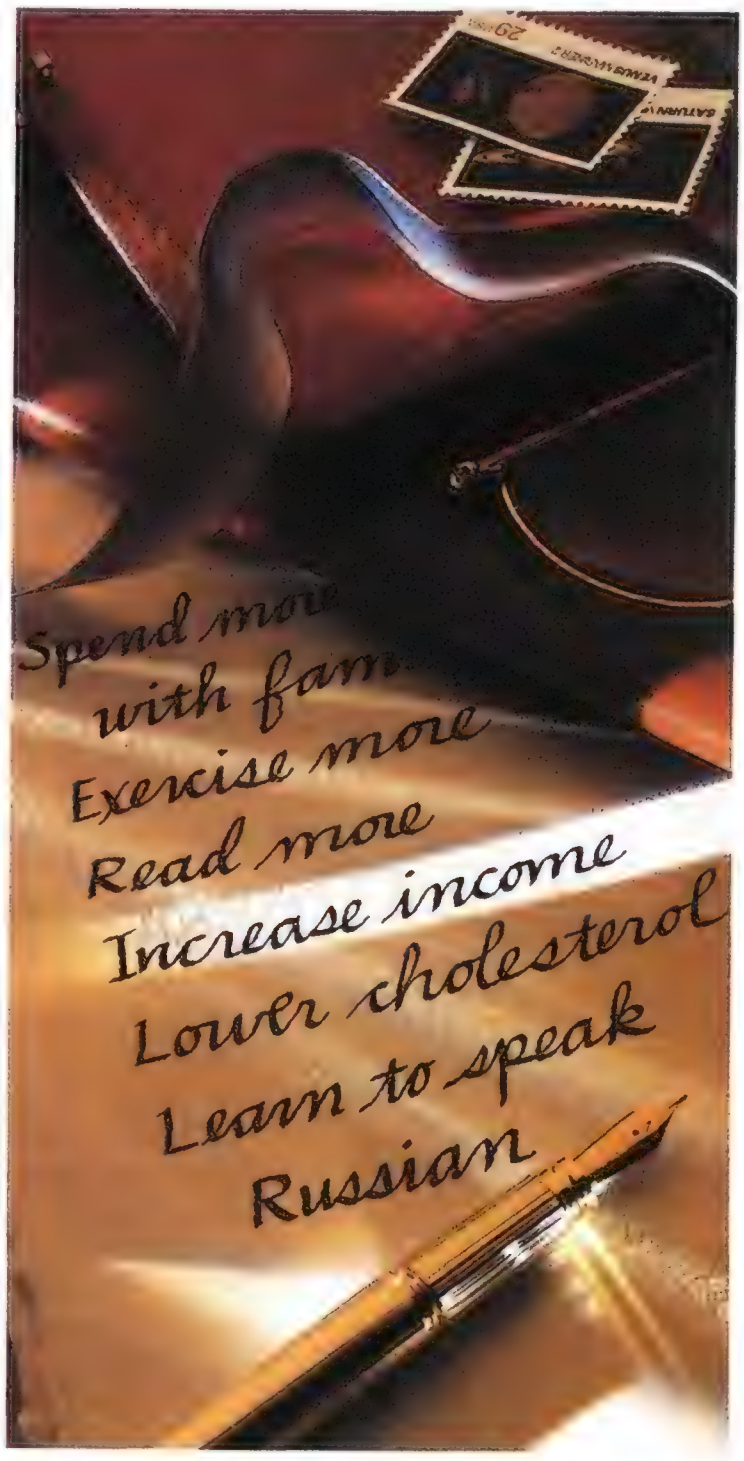

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The object at hand

Known as a "fancy piece," Hosmer's popular *Puck* is only 30 inches high.

A pint-size Puck cut from marble led young Harriet Hosmer on to fame and fortune as a sculptor

The figure of Puck, a baby boy with bat wings and a thatch of curly hair made famous in *A Midsummer Night's Dream*, perches on a toadstool. He is about the size of my daughter Grace, who's chubby and solid at 12 months. Puck's pudgy right arm is cocked, preparing to hurl a beetle in my direction. His left leg curls under his right, and a shell clings to a headful of curls that frame a pair of tiny horns.

By today's standards Puck is appallingly sentimental, not to say cute beyond words. But even 137 years ago, when 24-year-old Harriet (Hatty) Goodhue Hosmer stood back to admire the completed sculpture of Puck, she could have had no idea that the whimsical figure would sit one day in the Smithsonian's National Museum of American Art. Or that her *Puck*—an exception among her other, more serious works—would bring her international acclaim. Its reception transformed her into America's first financially successful professional woman sculptor as well as the most renowned woman sculptor of her day.

In general, Hosmer rarely deviated from neoclassicism, a style she and many others thought was the purest and most ideal form possible. Her stately full-length statues and busts of historic and mythic figures, as well as fountains and medallions, are scattered throughout the world.

Her tomb effigy of a young woman gracing the church of Sant'Andrea delle Fratte, near the Spanish Steps, was the first commission ever given to an American for a work in a Roman church. In 1860 she was commissioned to do a ten-foot statue of Senator Thomas Hart Benton (p. 24) for about $10,000. Unveiled in 1868, it was the first public monument erected in Missouri, and still stands in St. Louis' Lafayette Park. But it was the saccharin-sweet *Puck* that brought her the recognition and the resources that made many of her more dignified works possible.

In Rome in 1854, Hosmer learned that her father could no longer support her work there. Despite occasional commissions and the sponsorship of a family friend in St. Louis, she found herself pretty well bankrupt. Vowing to earn her own keep, Hatty decided to create something that would ensure a speedy sale. The result was *Puck*, finished before the year was out.

Upon seeing *Puck*, the Crown Princess of Germany blurted, "Oh, Miss Hosmer, you have such talent for toes." It so delighted the young future king of England, Albert Edward, Prince of Wales, that he is said to have called it "a laugh in marble." In any case, he promptly bought one for his digs at Oxford. Some 30 copies eventually sold for as much as $1,000 apiece (roughly $14,000 in today's dollars), enabling the young sculptor to rent her own studio and keep as many as 24 Italian stonecutters busy—in a day when women were more likely to "sculpt" with corsets and bodices than in clay or marble.

Her work and independent lifestyle did not please everyone. The novelist

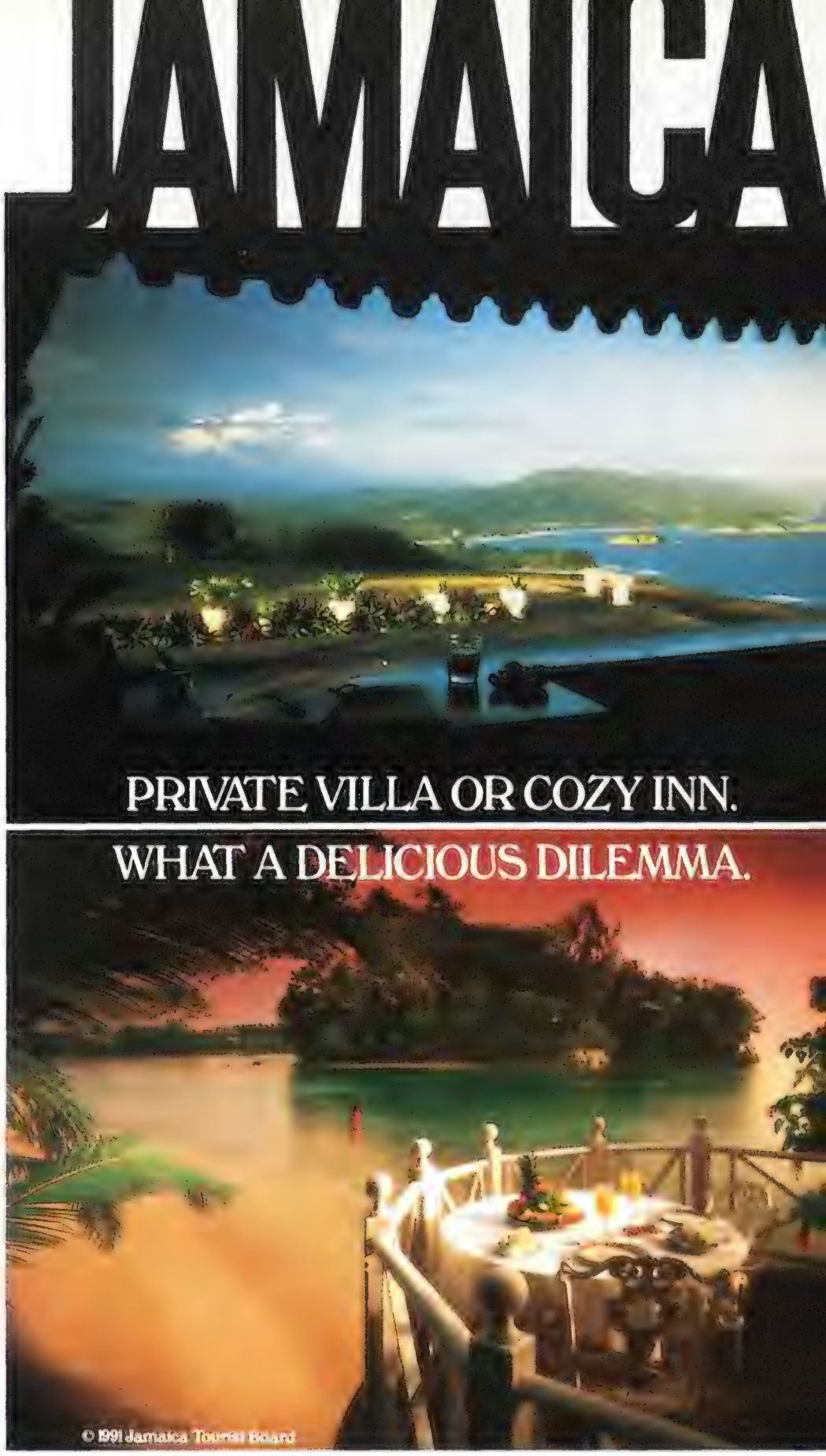
Henry James described Hosmer and the handful of female sculptors that now followed her to Rome as "that strange sisterhood of American 'lady sculptors' who at one time settled upon the seven hills [of Rome] in a white, marmorean flock."

The list of her friends, however, reads like an international Who's Who of the mid-19th century. Among them: Nathaniel Hawthorne, actress Charlotte Cushman, Henry Wadsworth Longfellow, the empress of Austria, and Robert and Elizabeth Barrett Browning. In the year that Hosmer met the Brownings, she paid tribute to her growing friendship with them by creating a cast of their clasped hands. Hawthorne was so taken with Hosmer's independent spirit that in his 1860 novel about artists in Rome, *The Marble Faun*, he partly modeled the character of Miriam after her.

Long before she reached the peak of fame, however, Hatty's life was still far from ordinary. The daguerreotype of her in the family's genealogy reveals a gentle, almost girlish woman, her hair cropped short of necessity to keep it free from marble dust in her studio. By the time she was 12 and living just outside Cambridge, in Watertown, Massachusetts, she had lost her mother, two infant brothers and a sister, all to tuberculosis. Her father, a Harvard-trained physician concerned about losing Hatty too, encouraged her to shoot, ride horses and generally act like a boy—a healthy life that shocked proper New Englanders in the 1840s, who regarded uncoupling railroad cars and climbing trees as unbecoming activities for a young girl. Hatty would bring birds that she had shot back to the house, stuff them and fashion clay models of them.

Eventually, she proved too much for her father to handle. Full of energy and mischief, she was expelled from school three times. The last straw came when she fabricated the obituary of an elderly, but still extant, Watertown doctor, sent it to a Boston paper and watched the procession of well-wishers call on the "bereaved" family. At age 16, she was packed off to Mrs. Charles Sedgwick's school in the then remote Berkshires. There, actress Fanny Kemble, who often visited the school, encouraged Hatty's artistic talent, urging her to combine her mechanical gifts with her interest in modeling clay figures.

Hatty knew she needed to study anatomy, but at the time no medical school on the East Coast would accept women—then believed to be too weak of will and constitution for the study of corpses. In 1850 she headed west to St. Louis where Wayman Crow, an influential family friend (he would later found Washington University), became her champion. Crow, who would become a lifelong sponsor, then persuaded Dr. Joseph Nash McDowell, an eccentric professor of anatomy at Missouri Medical College, to let her study. McDowell met with her in the mornings in his office for a private lecture and the examination of specimens. (Whether Hatty joined McDowell on his routine body-snatching outings for the collection of fresh cadavers is not on record.) By the end of the term in early 1851, the 20-year-old Hatty, rumored to carry a pistol, had become a legend among the male medical students. Later that year, on a trip north, she smoked a peace pipe with a Dakota Indian chief and had herself lowered into a lead mine via a bucket, nearly plunging to her death. Once, aboard a steamboat on the upper Missis-



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sippi, when the passengers came upon the bluffs near Lansing, Iowa, she wagered she could beat any one of them up the highest bluff—and won. The bluff was dubbed "Mount Hosmer."

At 22, with her father prepared to foot the bills, she felt ready for Rome, the mecca for mid-19th-century sculptors. John Gibson, one of the most famous of the day, recognized her talent and took her as a student, letting her work in his studio. Even in Rome, her behavior caused a commotion. It was not out of character for her to anesthetize a snake found in a field, bring it into the studio to study, then let it go. In the late afternoons, after working straight through from 6 A.M., she would ride her horse through the streets of Rome—until the police intervened, shocked that a woman would dare to ride by herself. After that, she rode outside the city walls, on the Campagna, though it was filled with hidden potholes, and there was a risk of being set upon by highwaymen.

Elizabeth Barrett Browning once described Hosmer as a truly "emancipated female." Though she wore a pair of bright-hued Zouave trousers to climb scaffolding in her studio, and never married, Hosmer did not consider herself a feminist. "For a man," she wrote, the mix of marriage and a career in art "is all well enough, but for a woman on whom matrimonial duties and cares weigh more heavily, it is a great moral

Hosmer works on clay model of Missouri Senator Thomas Hart Benton, 1862.

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wrong, I think, for she must either neglect her profession or her family. . . ."

"I don't approve of bloomerism," she once wrote, a reference to Amelia Bloomer, who in 1850 gave her name to the pants she unabashedly wore in public. Hosmer believed that women should develop their talents, however, and the struggle of heroic or powerful women from life and legend preoccupied her. Her first major pieces were busts of Daphne, who turned into a laurel bush rather than submit to Apollo's advances, and of Medusa, the tragic beauty cursed to turn to stone anyone who looked at her. She also created sculptures of Beatrice Cenci, executed for killing her abusive father, and Queen Isabella of Spain.

When Hawthorne visited her studio in 1859, he was struck by her clay figure *Zenobia in Chains*, the proud captive queen of third-century Palmyra: "there is something in her air that conveys the idea of music, uproar, and a great throng, all about her, whilst she walks in the midst of it, self-sustained and kept in a sort of sanctity by her native pride." In marble, Zenobia towered seven feet tall. It was Hosmer's first uncommissioned full-length figure. Aside from the thoroughly commercial *Puck*, it became her best-known work.

Success brought a strong dose of jealousy from male sculptors and critics, who cooked up rumors that her stonecutters, not Hosmer herself, were responsible for her work. In response, she penned "The Doleful Ditty of the Roman Caffe Greco"—a poem poking fun at the chauvinist males: "Tis time, my friends, we cogitate, / And make some desperate stand, / Or else our sister artists here / Will drive us from the land." In 1863, when the London *Art Journal* and *Queen* formalized similar rumors in print, she threatened a suit for libel. Both magazines agreed to print retractions. The next year, she published in the *Atlantic Monthly* a serious article titled "The Process of Sculpture," which explained the extent to which sculptors—male *and* female—relied on stonecutters to translate into marble the figures that the artists had created in clay.

Meanwhile her fame increased—along with the number of lucrative commissions for fountains, portrait medallions, busts, and gateways for the rich and famous of England, among them a set of gates for the art gallery of Lady Marian Alford, daughter of the Marquess of Northampton. Hosmer's summers soon began to be filled with visits to the castles and grand country estates of the British aristocracy.

Though she lived until 1908, throughout the 1880s her creative work in sculpture dwindled almost to nothing. No one knows why. Some believe that it was because neoclassicism had lost its vogue. The more likely, but less satisfying, answer is that Hosmer, as was her wont, went on to something else. She began experimenting with inventions, including a magnetic motor and a process—which was actually patented—for transforming limestone into an imitation marble.

"What fun it would be to come back to this earth after . . . a hundred years or so," she wrote a friend in 1861, "and see what has been going on in flesh while we have been going on in spirit!"

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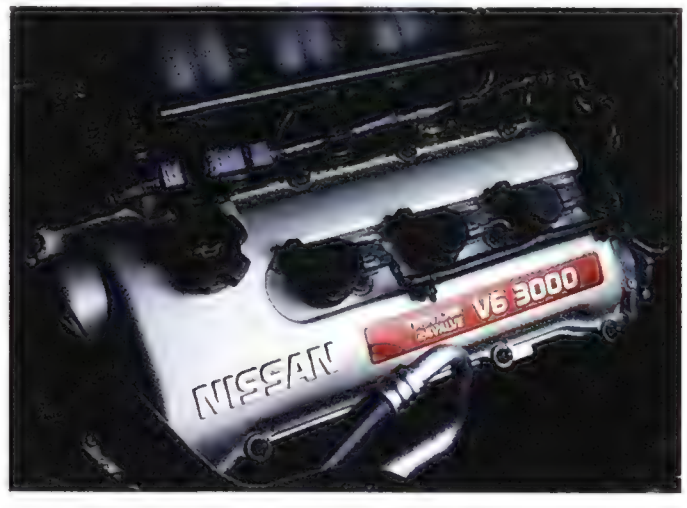

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Section of the "flats," a 44,000-acre pasture, gives a good idea of the sheer size of the ranch holdings.

By Jake Page

New Mexico's Gray Ranch: the natural preserve as big as all outdoors

Fitzpatrick Camp, now the manager's home, lies in foreground, 12 miles from Mexico's San Luis Mountains.

The Nature Conservancy recently acquired 502 square miles of almost pristine land; now they have to figure out what to do with it

On January 29, 1990, the Nature Conservancy tersely announced that it had bought a working cattle ranch in southwestern New Mexico, an exceedingly large ranch, and the consternation was great in several quarters. The Conservancy had bought the locally fabled Gray Ranch, upon which the eager glance of many had already fallen in that prematurely proprietary way of people interested in a piece of land that is coming up for grabs. The purchase, it turned out, was the largest single private conservation deal in the history of the United States. The deepest consternation was felt in Hidalgo County, New Mexico, itself, of which Gray Ranch comprises a considerable fraction.

There's a lot of nothing in the boot heel

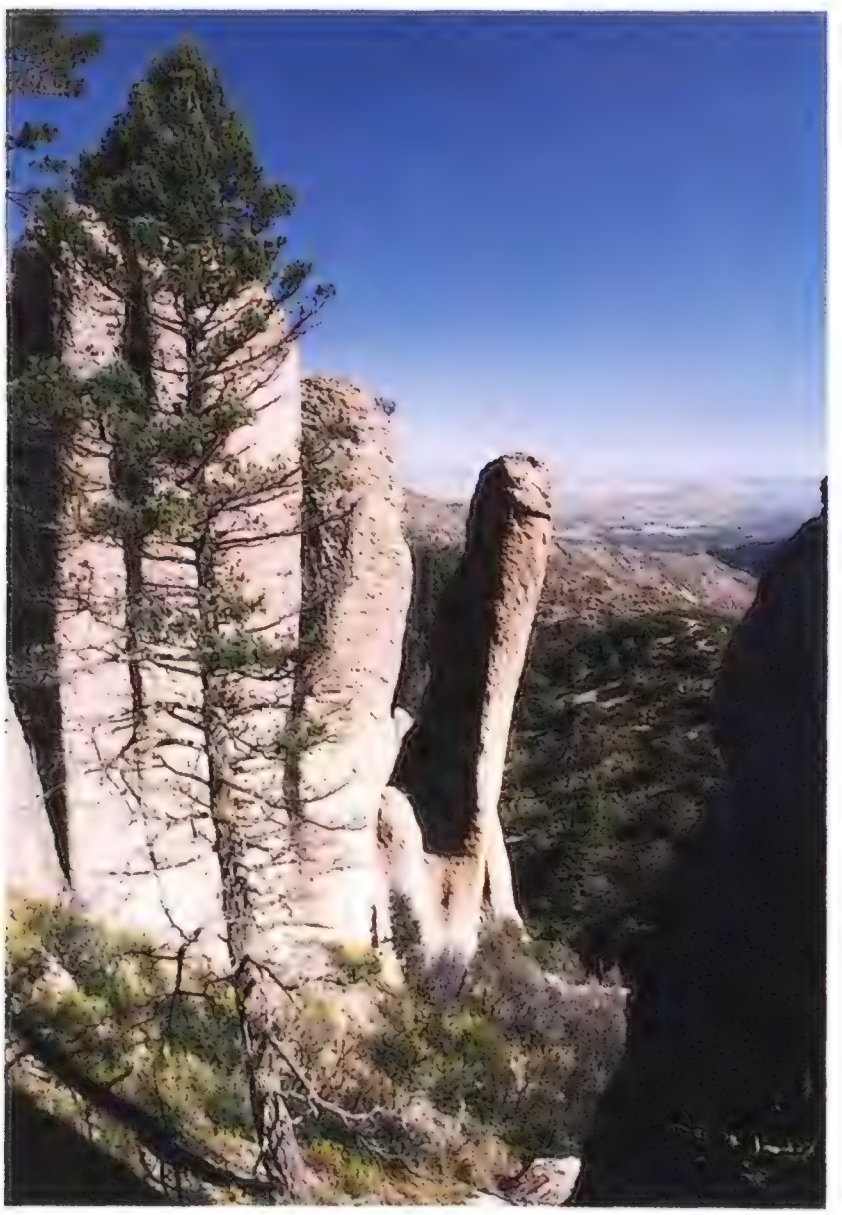
In Hidalgo County, where the southwestern corner of New Mexico dips down into Mexico, there's a place called the "boot heel," and what is there is a whole lot of nothing. Interstate 10 slices right through the county north of the boot heel, trafficked there mostly by people headed for Tucson, Arizona, or El Paso, Texas, both some 200 miles distant. In Hidalgo County there are fewer than two people per square mile on average, in all about 6,000 people, and about half of them are in Lordsburg. (On Gray Ranch itself the average is about one person per 20 square miles.) There were four part-time Hidalgo County doctors in a recent count, no institutions of higher learning and no radio stations. The county does boast a few recognized historic sites, including the ghost town called Shakespeare (p. 33), where visitors can see reenactments of shoot-outs.

Today, in the boot heel, there's a little bit of cotton growing, a fair amount of cattle ranching, and Phelps-Dodge has a copper smelter. If there is a civic focal point, it is the town of Animas, in particular the Animas high school football team, which won 69 games in a row, the second-longest winning streak in high school football history, and got written up in *Life* magazine. That was a couple of years ago; now the area is back in the news, and the people there have mixed feelings about it. A lot of them have a refined sense of privacy, and also a proprietary feeling about Gray Ranch. To begin with, there seems to be a lot of important local history here.

For example, in 1916 when Pancho Villa mounted the first (and last) attack on the continental United States since the War of 1812, it was on Gray Ranch that Gen. John J. Pershing massed some of his troops and mechanized vehicles that unsuccessfully pursued the Mexicans across the border. Earlier, in 1886, in the mouth of Skeleton Canyon, west of what is now Gray Ranch, Geronimo gave up to U.S. troops, signaling the end of organized resistance on the part of free-roaming Indians on this continent. Skeleton Canyon is so named

Photographs by Matt Bradley

An abandoned general store, now used to store hay, is all that is left of the town of Cloverdale, New Mexico.



Volcanic rock has fractured and eroded into these freestanding spires, the Pinnacles, near Animas Peak.

for the Mexican gold smugglers who were shot down there like fish in a barrel, their treasure never found and still a gleam in romantic eyes. In Cloverdale, two miles west of the ranch and now a ghost town consisting of one abandoned general store (left), various outlaws hung out, including the Clanton boys who figured in the gunfight at the OK Corral over in Tombstone. The boot heel, one current hand told me, was just the sort of isolated place that appealed to people who didn't want much public note taken of them.

A Texas Ranger's name lives on

The ranch gets its name from a former Texas Ranger named Michael Gray who took up a parcel of land around 1880, but left a couple of years later after his son was killed by *bandidos*. Throughout the 1880s and '90s, some 12 such local ranches were sold to mining magnate George Hearst, father of William Randolph and a man alleged to be so mean that once, in Arizona, a scorpion stung him and the scorpion died. This amalgamated ranch became a part of Hearst's multistate Diamond A. It changed hands several times until, in the 1980s, it ended up in the hands of Mexican billionnaire Pablo Brener. Brener sold it to the Conservancy for a reported $18 million. He did, however, retain a lease to run the cattle operation.

Gray Ranch is roughly half the size of the state of Rhode Island (502 square miles to be exact) and is bisected by a mountain range, the Animas Mountains, close to the southernmost end of the U.S. portion of the Continental Divide. It surrounds the most remote border crossing anywhere from the Gulf of Mexico to the Pacific—a place called Antelope Wells. Gray Ranch also contains one pasture (now closed to grazing) that is 44,000 acres, which is to say, a single pasture more than three times the size of Manhattan Island: 69 square miles. It is not the sort of thing you can imagine unless you see it—once a late-Pleistocene lake, now a sea of multifarious grasses dotted here and there by round metal water tanks filled by windmills made in the 1940s that squeak in the wind. We are talking here of open space, a lot of open space, amazing distances in every direction. The ripsaw teeth of the mountains that lie on the horizon are *way* far away.

The local people don't like the spoor of the federal government, or even the state government. They feel like they get along fine with a minimum of such alien interference. So they got restless when the U.S. Fish and Wildlife Service (USFWS) started making noises in the mid-1980s about buying Gray Ranch. When the Nature Conservancy up and bought it, some people in the boot heel assumed that the Conservancy was part of the feds.

A lot of environmental purists have complained that

Prickly-pear cactus and yellow tufts of snakeweed dot the landscape near the ghost town of Shakespeare. Billy the Kid is reputed to have washed dishes here; four shoot-outs, two hangings, have been documented.

the Nature Conservancy, in its pursuit of buying up and setting aside unique ecosystems, is all too cozy with corporations and other malefactors, or that it is an overly rich and elitist operation—but no one has ever accused the Conservancy of being stupid. After the purchase, Conservancy officials made sure that life in the boot heel went on as usual; the cattle operation continued, and several locals got Conservancy staff positions. But one of the biggest problems was security on the place.

If you have a wire fence about 20 miles long, with four remote gates, that separates your place from Mexico, you have a security problem—drug smugglers and illegal aliens. A gate inside Gray Ranch has a padlock mounted in a box made of half-inch steel plate. A drug smuggler came upon this device one night and shot the lock off, and one day I put a finger in the bullet holes that went straight through the steel plate—a sobering experience.

New Mexican Jake Page's latest book, Animal Talk, *written with Eugene Morton of the National Zoological Park, will be published in May by Random House.*

So what, then, are the bankerish folk in the Conservancy doing with an enormous place where criminals use heavy artillery on the gates and where cattle, of all things, have been grazing?

Traditionally, and for some 40 years now, the Conservancy has plotted endangered species of plants and animals, even ecosystems, looked for interesting concentrations and then, on the qt so as not to inflate values unnecessarily, bought up such places. As often as not, they'll resell the new area to some agency like the USFWS to manage as a refuge or what have you—as with the Sevilleta National Wildlife Refuge in New Mexico. Just as often, they'll hold on to it and manage it themselves, as with Ramsey Canyon in southeastern Arizona, where 14 out of 15 hummingbird species recorded in that state can be seen.

In the 1980s, when rumors about Gray Ranch's availability began to be heard, it was known that there was a concentration of endangered species on the place. In fact, maps that the state game and fish people put out in the *Handbook of Species Endangered in New Mexico* show many of them to be in Hidalgo County and most of these—7 mammals, 15 birds, 3

Text continues on page 36

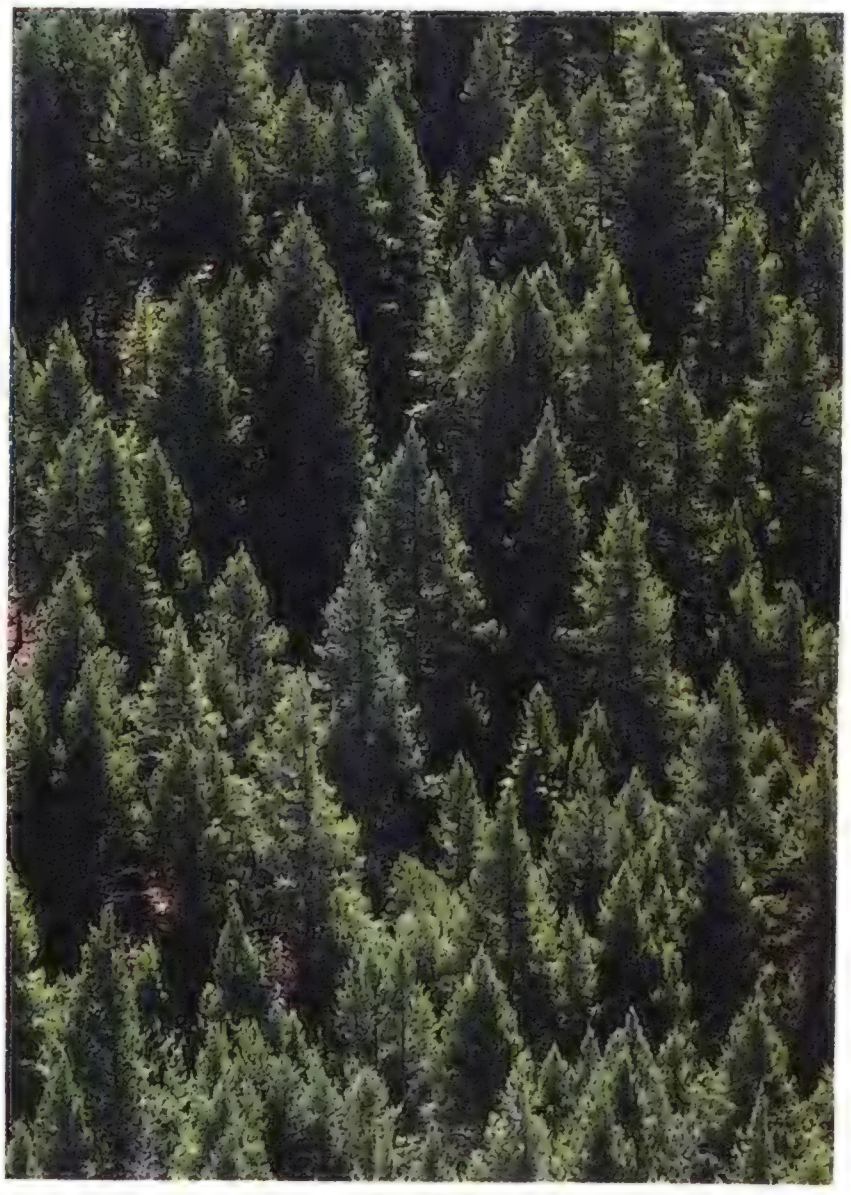
Aerial view across Animas Range shows about 50 square miles of the ranch, with Mexico in the distance. Pronghorns, coatimundi, mountain lions, prairie falcons and Montezuma quail will be protected here.

Three species of grass—cane beard, sideoats gramma and Arizona cottontop—indicate a diverse prairie.

One of several species of Indian paintbrush found on the ranch glows in the light of early morning.

In autumn, goldeneye blooms turn the flats into a sea of golden yellow reaching almost to the horizon. To the right are the Chiricahua Mountains in Arizona and to the left are the Peloncillos in New Mexico.

Yucca elata, with Animas Peak in the distance, is also known as soap tree for use Indians made of its roots.



Douglas fir grows at cooler elevations, home to spotted owls, red crossbills and Mexican chickadees.

reptiles and 2 amphibians—on or near Gray Ranch itself. It was also known that there were at least a baker's dozen archaeological sites where an old culture—the Casas Grandes—had preceded the Apache in the area. To USFWS, it seemed like a natural addition to the refuge system; they even had a name for it—Animas National Wildlife Refuge.

Given its extent and topographic variety, there were at least six different biomes right there on the ranch, and in that transitional border between Mexico and the United States where, like the two cultures, two floras and faunas tend to overlap. On the other hand, another unique feature of Gray Ranch interested the state land commissioner—an endangered ecosystem of another, domesticated sort: grass, or what ranchers call "feed." For various reasons, major tracts of grassland on Gray Ranch had never suffered the serious consequences of overgrazing, unlike much of American land west of the 100th meridian. Its grasslands are also unusually diverse, with 50 or more plant species, partly because, since the Pleistocene, the climate has not changed as much here as in surrounding regions. Prairie dogs are gone but, except for a few spots on the ranch where a bit of strain caused by up to 15,000 head of cattle had allowed the likes of mesquite and cholla cactus to immigrate, the grasses were nearly Pleistocene in richness. So it would make a fine laboratory for determining the true carrying capacity of Western pastureland. Beyond that, private buyers, including some from other countries, had their eyes on the place—no doubt to break it up and sell it off for purposes of unrivaled infamy.

So the Nature Conservancy people boldly bought it and were promptly told they had bought a pig in a poke. Too much money, some said. Others questioned the going estimates of the place's species-richness. Just as most of the glorious spring songs of birds have been found to be aggressive, territorial and even a bit deceptive, so science is not always at its purest when practiced by rival government hegemons.

In 1988, by way of ginning up enthusiasm internally and elsewhere for establishing Animas National Wildlife Refuge, the USFWS produced a report that said, among other things: "Comparatively, the ranch contains more species of mammals than Yellowstone National Park, Glacier National Park, Yosemite National Park, or any other national park or refuge in the conterminous United States." In all, it was claimed that some 270 vertebrate species lived there. The locals in the boot heel got upset at the prospect of federal excitement over this and protested loudly, suggesting that private ownership had already done a better preservation job there than could the feds. On these constituents' behalf, and perhaps its own, the state department of agriculture issued its own report, pooh-poohing the legendary biodiversity of Gray Ranch, saying that the area's vertebrate diversity is exceeded by any one of even the five national forests in New Mexico and several regional wildlife refuges, never mind all those national parks.

By the time this debunking report got loose, the

Cowboys in camp for the fall roundup include (standing) Red Webb, Tom Day, Russell Bias, Roy Gilbert, Richard Moore and Lonnie Moore. Down in front are Rick Walt, Matt Thomas, cook Ed Roos and Doug Wright.

Nature Conservancy owned Gray Ranch. But a year to the day after the Conservancy announced its purchase, the *state* game and fish people reported that the state agriculture department's report was phony. It had mixed apples and oranges, for example, inflating estimates by including *all* the birds in a given refuge, while only *breeding* birds had been counted for Gray Ranch. Aside from fooling around with the numbers, said the state game and fish biologist John P. Hubbard, with thinly disguised scorn, the agriculture report overlooked the rare species that would benefit from preservation—vertebrate *and* invertebrate—and overlooked as well the only agricultural resource present, the rarity of the undergrazed grasslands. Hubbard went on to say that we don't really yet know the extent of the ranch's biodiversity but that "the findings to date remain highly supportive of the area's being acquired for the public domain. . . ."

All this interagency contention was not wholly pointless, since at the time the Nature Conservancy had not yet announced its intentions for Gray Ranch. They had appointed an interim manager, Guy Bonnivier, whose full-time job is managing Conservancy affairs in Idaho. He commuted for about a year, arranging for biologists to come and make their own assays of the ranch's biodiversity, and trying to calm the fears of the locals, in particular the adjacent neighbors and the half-dozen cowboys who continued to work the ranch for the Gray Land and Cattle Company.

Bonnivier was awed by this vast arid domain, but undaunted by its numerous challenges. During an eight-and-one-half-hour drive around the ranch, he explained that the Conservancy was for the first time preserving "an entire landscape," and he saw no reason why the cattle business should stop. He pointed to some coarse, yuccalike plants: bear grass, he explained, which Mexicans under contract come and gather to make brooms. "There are about 1,500 deer on the ranch," he said, "and some 200 pronghorns." An unassertive way of saying that wildlife and cattle can coexist. Asked about the archaeological sites, he said that there were plenty that were not documented and that archaeologists had told him simply to leave them alone, undug: there was already plenty of material from Casas Grandes sites on the ranch sitting unexamined in museums.

Toward the end of the bumpy ride, Bonnivier took off on foot over a fence and up a rise among some oak trees, and showed his guests what he thought was a special place. It was a natural shelter made of huge rocks near an undug but obvious prehistoric habitation, and Bonnivier climbed up into it, peering out the other end at the vista before him—vast grasslands leading up to the steep slopes of Animas Peak. He pointed out how smooth and shiny the rock was where he was sitting. "I guess those old Indians used to come here and sit, maybe for some religious purpose, maybe just to cool off in the summer."

I found myself admiring the deliberate pace with which Conservancy biologists were exploring their new preserve. I had the feeling that no one at the Conservancy was in any rush to do anything but simply find out just exactly what this gold mine was that they were sitting on.

A lepidopterist in search of Pleistocene relicts

What may be a fairly typical Gray Ranch day took place last April. Down in the Fitzpatrick Camp (one of the former old ranches), which sits in the middle of the 44,000-acre pasture, some people from Hawk Watch got up and went out to count raptors, no doubt hoping to see the zone-tailed hawk (a largely Mexican bird). Another band, led by Steve Cary, who works for the state's environmental protection department seeing to the cleanup of toxic wastes, but who is also a freelance lepidopterist, headed off for the heights of Animas Peak (altitude: 8,532 feet) to look after his constituency—the 130-odd butterfly species suspected to frequent or breed

Greg Schmitt

The only U.S. population of white-sided jackrabbit, a Mexican species, is to be found on Gray Ranch.

C. W. Painter

Found on ranch and across Southwest, fierce-looking black-tail rattlesnake is relatively docile creature.

on the ranch. Most excited by the Mexican fauna and what he calls "Pleistocene relicts," those that simply remained in the heights after the last ice age, he found 41 species that day. Among these was "the only colony in New Mexico" of a Mexican checkerspot, a red, white and black butterfly that, as a caterpillar, feeds only on a specific kind of penstemon plant.

While Cary chased lepidoptera that day, I was bouncing along in a four-wheel-drive truck with Bill Cavaliere, a jack-of-all-trades who recently left the Conservancy staff (total at the ranch: seven) and who also worked seven years as a deputy in the Hidalgo County sheriff's office. Possibly not typical of New Mexican law enforcement officers, Cavaliere is a practiced birder and his conversation is likely to be peppered with the identity of birds he catches in his peripheral vision. He had been talking about chasing drug smugglers when the conversation somehow turned to the tanning of rattlesnake hides. We were not far from the San Luis Pass (where the bullet-holed gate is) at the southern end of the Animas chain and near the Mexican border. "You use 50 percent glycerin and 50 percent kestrel . . . no, no, 50 percent alcohol. Oh, you want to see a vermilion flycatcher? There's always one over there by that tank." We stopped and crossed to a man-made pond (a "dirt tank" in local parlance) and sure enough, one of these packets of brown and the reddest red in North America began its pirouette at the water's edge. Cavaliere said: "And there's the female right behind . . . drug plane."

Quietly humming, an old four-engine, propeller-driven warplane with all its markings obliterated by a dark olive coat of paint filled the sky from about 15 feet above a hill, approaching as if in slow motion. It banked over us and headed west down the border as leisurely as a cow, about 200 feet above the valley floor, among the hills and out of "sight" of the Aerostat radar balloon about 75 miles away in Deming, New Mexico. It was 1 o'clock in the afternoon.

It's open land, but you can't just walk across it

Later we visited the border crossing at Antelope Wells where a group of four pilgrims had been dropped off so that they could begin a hike of the Continental Divide all the way to the Canadian border. One of them, a member of the Nature Conservancy, was severely miffed that, as he soon learned from Cavaliere, he could not simply set off across Gray Ranch and march along the top of the Animas Mountains (no one can), and that he really shouldn't walk across *any* of the ranches in the area without prior permission. "They'll run you off," Cavaliere explained mildly. The four pilgrims headed north on the long, dusty road under an endless blue sky at 4 in the afternoon, their destination: Canada.

Among the many biologists who have been invited to make censuses is one whose interest lies in a creature that is definitely not there. Noel Snyder was a biologist with USFWS when he determined that a major cause of mortality among California condors was lead poisoning—from scavenging large game that had been killed with lead bullets. He and his colleagues persuaded the many groups fanatically arguing over what to do with the last remaining condors to take them out of the wild to be captive-bred in zoos until the right circumstances for introduction could be established. Since then, he has been snooping around the caves on Gray Ranch, studying the area. (Fossil condor eggs have been found near the ranch.) Gray Ranch, along with the Grand Canyon, is being considered for the reintroduction of these largest of North American birds. In January a few were released on their original California sanctuary.

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Patrolmen Hector Lara and Les Perry talk with Bill Cavaliere, former lawman who worked for Conservancy.

Conservancy biologist Anna Cato weighs grass clippings to determine yields based on fire history of plots.

"Oh, that's just the sort of thing I'd love to see," said John Sawhill, president of the Nature Conservancy and formerly Deputy Secretary of the U.S. Department of Energy and president of New York University. Sitting in the conference room of the Conservancy's corporate headquarters in a glass-sided building in Arlington, Virginia, he stared off into the distance, and I knew just what he was seeing: the wedding of two of the continent's grandest Pleistocene relicts. Sawhill is responsible for, among other things, seeing to it that the Conservancy can raise the money to pay itself back for the millions paid for the ranch and come up with what's needed to operate the place. "We don't know if there is a role for the federal government there," he told me. "In any case, we won't leave."

Indeed, thanks perhaps to that occasionally reviled coziness with corporate America, the Conservancy strengthened its hold on the ranch, when in late 1990 Tenneco Minerals Corporation donated—just gave—the title it had to mineral rights under 81,000 acres on Gray Ranch.

The biological assays continued, the results being fed into a computer at the New Mexico Natural Heritage Program in Albuquerque, a biodata service created in this state as in others to provide all comers with factual information. "We get hit from the right and the left," says Sawhill. "Libertarians think we should manage the entire national parks system; some conservation groups complain that we don't take ideological stands. But we're strictly a science-based organization."

The data—being sorted and added up

The Gray Ranch results from the Natural Heritage Program are adding up and will no doubt continue to do so for years to come. So far they've identified more than 60 distinct plant associations, or "communities," of which one-third are threatened, along with 14 plants and 13 animals. Coolly, the printouts sort creatures and communities by a grading system that shows "global rank" and "state rank." "G1" means "critically imperiled . . . five or fewer occurrences." In this category are the emory oak and the sand dropseed grass community, the Animas Peak woodsnail, the Animas talus snail and the Chiricahua mudwort. At G2 (six or more occurrences, or hardly a whisker's worth of difference) are the Mexican long-tongued bat, Sanborn's long-nosed bat, another dropseed grass community, and several other plant communities. G3 (very rare and vulnerable to extinction) lists the likes of the lowland leopard frog, the Arizona shrew, the bunch grass lizard, Baird's sparrow, the Chiricahua mountain larkspur and leopard frog, and about a dozen plants and plant communities.

Such floral and faunal esoterica may not be the stuff

Now picture them in three-piece suits.

These Indians are on their way to becoming the white men's idea of gentlemen. They have been enrolled in a special school where they will have their hair cut short, will be allowed to speak only English, will be denied visits home for five years. The idea is, they will stay in school until they are "civilized." An honorable notion, maybe, in the 1890s when the Carlisle School for Indians was established. But by the 1930s, after the Carlisle model had been copied at many reservation boarding schools, it was clear that "killing the Indian and saving the man" was not doing the tribes any good. The noble experiment was abandoned. Native Americans who lived through it help tell the story.

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Fire ecologist Geoff Babb, manager of the Gray Ranch preserve, believes that multiple use is the way to go.

of great zoo attractions, and in fact most people probably would not drive the 50 miles south off Interstate 10 to see these species if there were an Animas National Wildlife Refuge. But that's not the point. The point is that anyone can tell almost without thinking that the landscape of Gray Ranch is a great place. Just that, a great place, a unique, coherent place where animals and plants have largely been allowed to be themselves for a long time, and that itself is rare enough.

And Gray Ranch, bought out of impulse, intuition or scientific evaluation, is the flagship for a whole new program of bioreserves—called Last Great Places—that the Conservancy announced in May 1991. Huge regional ecosystems and cultural systems, like the entire San Pedro River drainage in Arizona and an immense rain forest in Panama, places where a vast core of "wild" nature can be preserved surrounded by zones of increasingly intense human use.

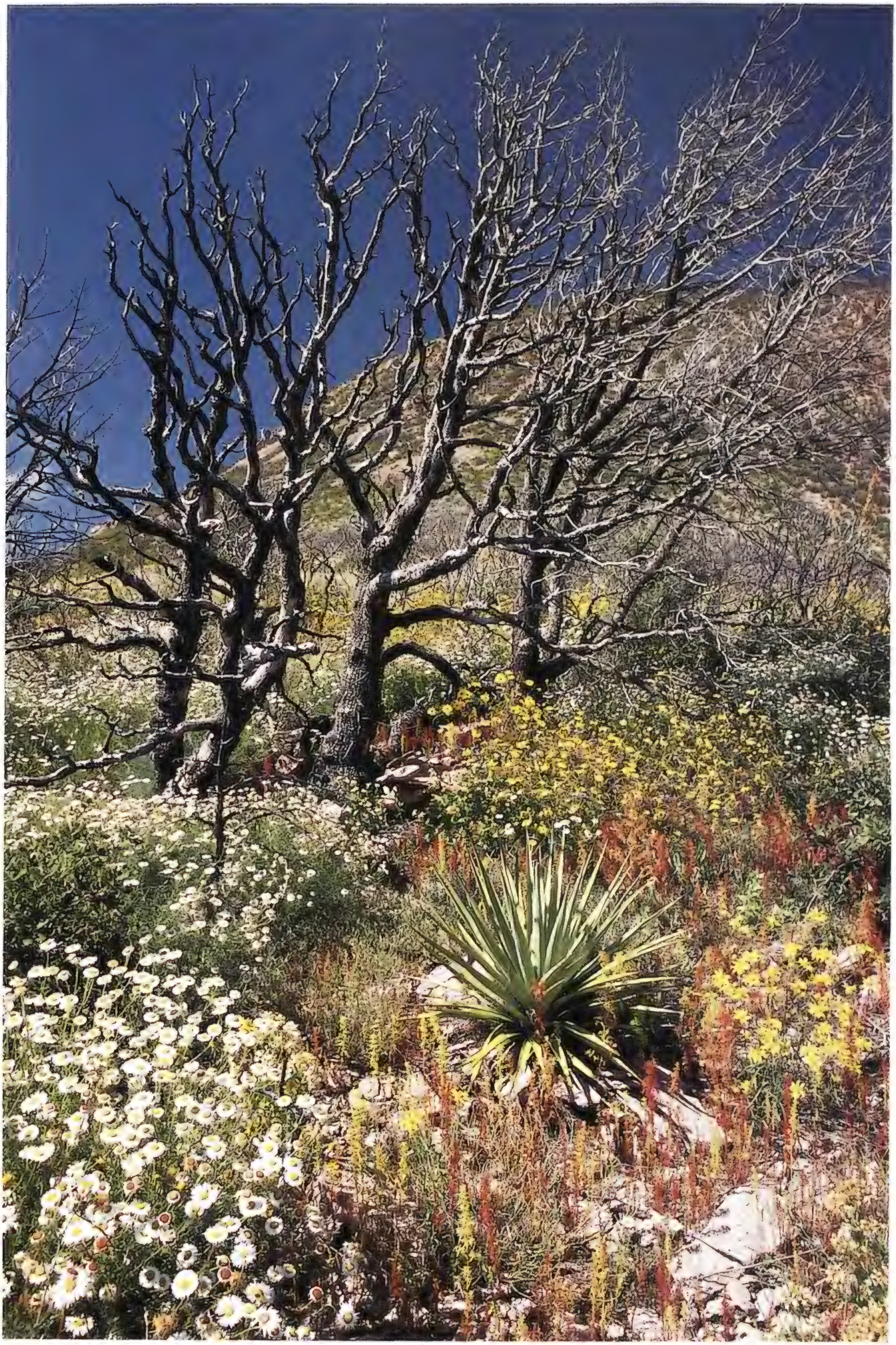
So then, what's the plan for Gray Ranch? Geoff Babb, who studied fire ecology and forestry at the University of Arizona and has applied his studies in Florida, has been appointed manager. There's a lot of lightning on Gray Ranch—it's a dangerous place, in fact—and finding out what role lightning fires have played ecologically is a major theme for Babb. "I'm the guy who gets to play with matches," he says, and he plans to use fire actively but in a controlled way. Near the San Luis Pass, for example, the ground is covered with thousands of cholla cacti, more than should be there naturally, it has been said, thanks to grazing pressure. The cowboys, when summoning one another on the radio, call that area "Cactus." It will probably be burned to restore it to a more natural state (though this will take explaining to the cowboys).

Asked about plans for opening the ranch up to visitors, Babb explains that he is sensitive to that need but also sensitive to the effects of too many visitors on the nature of such locales, not to mention on local people. There'll be nothing like the crowds at a typical national wildlife refuge, says Babb. The entire mountain range, with its multiple ecosystems, will likely wind up (in the severe parlance of these schemes) an "uncompromised conservation area," with a buffer zone downslope beyond which rotation grazing of cattle will continue on some 30 different pastures. The grasslands unavoidably include introduced species, but the higher slopes seem to be uniquely free of foreign interlopers. "We want," says Babb, "to break down the dichotomy between preservation and land use. Conservation, after all, means wise use, and we think there can be a mix."

"We want to preserve a way of life," said John Sawhill when asked some of these same questions. He referred to the xenophobic cowboying folk on the ranch, but also implied a larger recognition that human and natural history are, in the long run, the very same thing, that local human traditions cannot healthfully be divorced from the great upwellings of nature's creativity. On Gray Ranch, the *t*'s of policy remain to be crossed, many taxonomic curtsies remain to be made, as well as plans and accommodations for visitors of many genera, maybe even condors.

It is quite possible that nobody will be completely fulfilled by what henceforth occurs on Gray Ranch. I worry a bit still about those four pilgrims who innocently assumed that they owned the entire Continental Divide by right of its existence as a challenging contour line on the map, an abstract idea. On the other hand, Gray Ranch's future seems to lie with people whose goals are defined chiefly by the genius of the place, a pragmatic kind of dream that, in other contexts, we sometimes call sacred.

Wildflowers bloom profusely beneath alligator bark junipers burned in 25,000-acre lightning fire in 1989.



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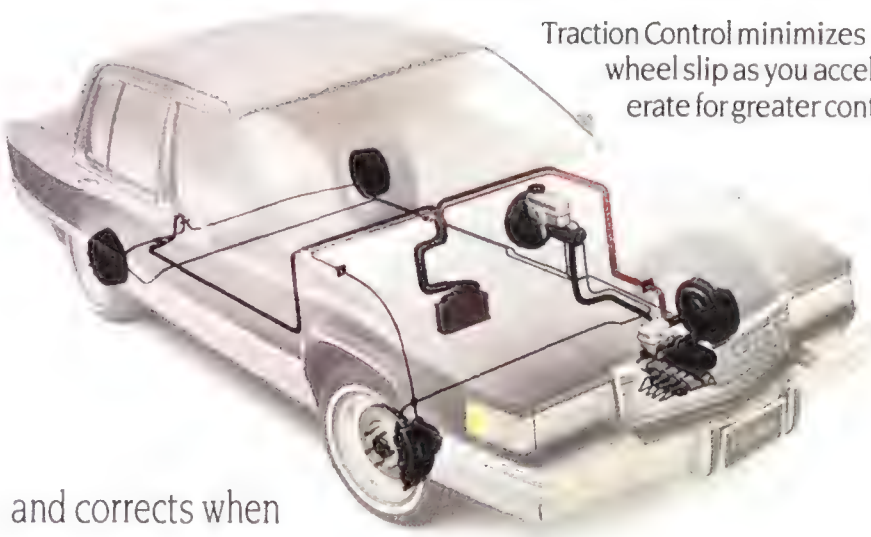

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By James R. Chiles

Goodbye telephone, hello to the new communications age

Remember the old party line? The new one combines voices with pictures and computers. But not to worry—you can still call home

The time is nearly 5 A.M. and two US West technicians are looking at me expectantly, their hands full of clothesline-like ropes that lead into tall racks of brass-and-steel telephone equipment. Dennis Winter, the switching supervisor, is watching a big clock on the wall tick down the seconds. After months of planning, US West is about to cut this sturdy old "step-by-step" switching system off at the knees. "All right, it's time," Winter says. He nods to me to give the signal.

"Go ahead!" I say, and the technicians start yanking their ropes with all the energy of drowning men. Hundreds of tiny ceramic-coated circuit breakers, the size of necklace beads, fly from the panels and skitter across the brown linoleum floor. One of the workers flings his ropes aside and produces a small pair of scissors. He then begins snipping through rows of tiny blue wires as fast as he can. Every phone in the town of Fairfax, Minnesota, goes dead in this process. For all we know, someone might be frantically trying to call the police right now, so each second counts.

Winter passes a few words over an intercom, and more technicians in a new building next door begin flipping plastic guards away from a brand-new bank of equipment. And with the touch of a few keys, a computer-operated switch takes over the duties of moving Fairfax's calls around. In the space of one minute, 1,280 phone owners in this farming community have taken a nearly 100-year leap in technology. Before, they had a motorized-gear switching system whose design originated with a Kansas City undertaker in the 1890s. Now they have a system capable of carrying the town well into the 21st century, and it's linked to the world by fiber-optic cables.

This is just one scene in a quiet transformation that's under way across the entire length and breadth of a $250 billion-plus network that evolves not just daily but hourly under the aegis of America's 1,442 telephone companies. These changes are mostly out of sight, but your ears have probably noticed one of them: long-distance calls so static-free that you can't distinguish them from local calls. Nearly every time you phone long distance these days, your voice travels in the cold, clear digital language used by fiber optics, the fine glass strands that convey information as pulses of light. "All over the country we're wiring up for the new communications age that's coming," says Frank Hawkinson, spokesman for the National Exchange Carriers Association, a telephone industry cooperative.

The nation's phone system is doing the job that Alexander Graham Bell envisioned when his patent was issued in 1876—connecting nearly anyone's voice to anyone else's ear at an affordable price—and a lot more besides. At present the lines handle vast quantities of faxed documents and computer transmissions, but the network shows signs of evolving over the coming decades into an even more sophisticated conduit of information, one that can bring incredibly vivid pictures directly into the home.

When the systems break down

Every transformation creates upheaval, however, and the advances have eroded some longstanding traditions of telephony. What was once a stable system of interlocking monopolies has grown nearly riotous with hundreds of competitors, equipment choices and service options. And what was always a remarkably reliable system has suffered several widespread failures in the past few years, attributable to the newest equipment. A computer problem in AT&T's long-distance network one day early in 1990 lost tens of millions of calls. A bad computer program in Baltimore cut off nearly seven million phones last June. A backhoe cut an MCI cable in 1990 and suspended the company's long-distance service to portions of five states.

Until something like this happens, most of us take the telephone for granted. You just pick the thing up, dial and talk, right? No big deal. In fact, ensuring that caller and called are able to find each other through billions of miles of phone lines and billions of circuits *is* a big deal, and such arcane work that it has given rise to a profession that in some ways resembles a technological priesthood. Nearly all the people I interviewed for this story have spent their entire careers in phones, and appear happy to spend the remainder doing the

The telephone has come a long distance indeed since Alexander Graham Bell invented the first crude transmitter (at top right) in 1876. Today we can place calls from automobiles, ships at sea and planes in the air. Using the phone system, we can fax documents around the world, and soon we will be able to dial up images of computerized data.

Illustrations by Pierre Mion

Tiny circuit breakers popped off panels when workers dismantled old switching system in Fairfax, Minnesota.

same thing. With so many companies intent on downsizing and laying off employees these days, in order to remain competitive, job security isn't what it once was. The work itself, however, continues to get more and more complicated.

That's because the phone business is no longer just a phone business. It's a computer-driven telecommunications network that in a very real sense constitutes the electronic lifeblood of countries all over the world. Everything depends on it—communications, transportation, education, businesses, hospitals, you name it. And the technology is changing almost daily. Even local phone companies are eager to branch beyond merely handling calls into some extremely sophisticated forms of broadcasting that could put them in direct competition with television networks and publishing companies.

To get an idea of how complex the modern-day communications business is, consider the problem of connecting just three or four phones: all you really need is a line from each phone to all the others. But connecting a hundred phones would require thousands of lines if you tried to hook each one to every other one. Instead, the network connects all the phones in a given neighborhood directly to a central point, called an exchange. The three-digit prefix on your local phone number is your exchange. Every exchange is in some kind of a building and has banks of connecting equipment known as a switch. When you call a neighbor down the street, your local exchange can handle the entire connection inside its own switch. But when you dial a friend with a different prefix, your exchange must pass your call to your friend's exchange, through high-capacity trunk lines stretching between the exchanges. The switch at the other exchange takes the number, checks to see if your friend's line is busy, and if not, rings the phone and gets him out of the shower.

Interconnecting exchanges go the distance

For calls crossing area codes, at least two more switches must enter into the transaction. These connect your call with cross-country trunk lines owned by well-advertised companies like MCI, AT&T and US Sprint. Consider a long-distance call to New York from an AT&T customer living in Fairfax, Minnesota. The call first travels via US West's underground fiber-optic cable to Marshall, Minnesota. There US West hands it off to equipment owned by AT&T, which proceeds to send the call over its own microwave towers and fiber-optic cables to one of the long-distance switches it operates in Minneapolis.

US West does more to handle a call from someone who subscribes to a smaller long-distance company. If

the call is from a subscriber in Fairfax who has signed up with MCI—which has fewer feeder transmission lines—US West will carry it all the way from Fairfax into Minneapolis and deliver it to MCI's switch downtown. If the subscriber belongs to US Sprint, US West delivers the call to Sprint's switch, which is located in nearby St. Paul.

All of the long-distance companies run the calls out of the Twin Cities to New York on their own networks. AT&T owns the most transmission equipment, but the latecomers can charge competitive rates. Because AT&T has been around for such a long time, it has to serve a great many markets that do not generate much long-distance business. The newer, smaller companies are free to concentrate their resources on the best long-distance markets.

With the exception of AT&T, each of the many long-distance companies operating in this country is a relative youngster. In 1984 a court-ordered divestiture broke up AT&T (aka Ma Bell) into AT&T and Bell Laboratories on one side, and seven regional "Baby Bell" companies and the new research organization Bellcore on the other. AT&T now handles long-distance traffic; the Baby Bells carry local calls. But the judge's order also opened up long-distance service to competition. How has it worked out for the customer? People who make a lot of long-distance calls "are substantially better off," says Alfred Sikes, chairman of the Federal Communications Commission (FCC).

Most local telephone markets are still monopolized by one company, but here, too, competition is growing. In some cities, long-distance customers already can go around their local phone companies entirely by leasing lines from other carriers that connect them directly to a long-distance company. The monopolies might fade even more if the FCC agrees to open up local phone service to competition in delivering local calls. Last October, a federal court gave the go-ahead for the regionally operated Baby Bell companies to begin offering computerized information services such as electronic Yellow Pages. Local phone companies also would like the government's permission to deliver high-quality television signals directly to the home over fiber-optic lines, which would enable them to go head-to-head with local cable TV companies.

The lively competition that resulted from the AT&T breakup has its origins in the early days of the phone system. At the turn of the century, some cities saw bitter rivalries develop between two and even three local phone companies. Each of the companies ran its own nonconnecting system.

Most of Jim Chiles' phone calls originate from his home in Plymouth, Minnesota. He wrote about independent oil riggers in the March 1991 issue.

Many towns like Fairfax still use motorized switching system invented by Kansas City undertaker in 1890s.

In Bloomfield, Iowa, for example, Bell had the long-distance connections but hardly any customers; the other phone company had the customers but no long-distance link. Denied the use of his competitor's phones to notify Bell customers of incoming long-distance calls, the local Bell manager had to go out on the office balcony with a megaphone and bellow out the names of people who had calls waiting.

Nowadays the companies work together, and although we consumers seldom stop to think about it, the results are amazing. Typical calls take only a few seconds to connect across the country even though they may pass through four companies and half a dozen types of switches. Each month, many local companies bill their customers and, in some cases, pass the long-distance receipts on to the long-distance companies, who then return some money to the same local phone companies to pay for the use of local lines. Specialized clearinghouses have been set up around the country to handle this mass of accounting.

There's a lot more to a phone call than meets the ear. Caller A phones neighbor B through her local exchange 1. But when A phones across town to C, her exchange 1 switches the call to C's exchange 2.

When A dials D or E, call goes through exchanges 1 and 3, via trunk line 4 to exchange 5, then to 6 or 7. A's call to F goes through overseas exchange 8 and then by satellite 9 or cable 10 to exchange 11 in France.

The preferred route of a call across the nation is a straight line, but there are many exceptions. During busy times, such as the peak hour just before lunch each Monday on the East Coast, long-distance calls are sometimes required to take dramatic detours. When trunk lines between New York and Atlanta fill up, for example, calls between those cities may detour as far west as Los Angeles to find a spare line.

At AT&T's Worldwide Intelligent Network Operations Center in Bedminster, New Jersey, it's easy to get the feeling from the daily ebb and flow of these calls that the system has taken on a life of its own. Managers here, seated at mission control-like consoles, keep an eye on a two-story-high wall of video screens. For a typical business day's volume of up to 140 million calls, AT&T's system is smart enough to run itself. When calls climb considerably above normal, though, managers stand ready to help the computers manage the traffic over the company's 118 switches.

AT&T's biggest day of the year for sheer number of long-distance calls is the Monday following Thanksgiving. The day on which people spend the most time on the phone is usually Mother's Day. And television can turn an ordinary day into an avalanche: when the MTV network offered to give away singer Bon Jovi's house, in the space of just half an hour viewers tried to place three million calls to the advertised number. Employees at the Operations Center still remember the night when Eddie Murphy, hosting the comedy program *Saturday Night Live*, asked viewers nationwide to call in and vote whether he should drop a crustacean dubbed Larry the Lobster into a pot of boiling water or let Larry go. Nearly half a million people responded by phone. Most of them wanted Larry's life to be spared, but Murphy, ignoring his own poll, went ahead and dropped him in the pot anyway.

Within five minutes of the California earthquake in 1989, AT&T's wall of computer screens showed that the national calling volume was double the usual level for early evening. Network managers therefore used their computerized controls to suppress the calls flooding into California so that calls could come out.

When a mysterious force began to take AT&T's switches out of service on January 15, 1990, "we knew we had something out of the ordinary right away," says Jim Nelson, district manager at the Network Operations Center. Nelson speaks in a tense voice that reminds me of actor Al Pacino's. Around AT&T he's known as the Doomsday Man, because a message from him may mean trouble brewing on the network. Without knowing exactly what the gremlin was, AT&T's experts were able to get a grip on their unruly system within a few hours by diverting calls from the distressed cities. Engineers isolated the difficulty: a faulty computer program was "confusing" some switches and causing them to shut down temporarily.

Driving a "pig" through a pipe

In the same way that they have devoted themselves to state-of-the-art switches, which are really just huge computers, AT&T and its competitors have cast their lot almost entirely with laser-driven fiber-optic cables for the transmission of calls. Most of US Sprint's 23,000-mile fiber network lies buried along railroad rights-of-way. WilTel, of Tulsa, Oklahoma, owns 11,000 miles of communications network and nearly all of it is fiber cable. A subsidiary of a petroleum pipeline company, WilTel has uncovered an ideal location for almost a third of all its cable: obsolete pipelines, including one that stretches from Kansas City to Los Angeles. The technique: workmen cut a hole in the pipe every mile or so, and use compressed air or water to drive a ball, or "pig," inside the pipe, between the holes. The pig drags flexible hose behind it. Fiber cable goes inside the hose. Installation is faster than automatic trenching machines, which have to cut a deep slot in the ground. And because a pipeline is already in place, WilTel can avoid months of searching out and negotiating with new landowners for rights-of-way.

A typical fiber-optic cable holds a dozen or two plastic-sheathed strands of glass; including sheath, each strand is about the diameter of a toothbrush bristle. TAT-8, the only transatlantic fiber-optic cable now in service, can carry 40,000 simultaneous phone calls. Early this year, a new transatlantic fiber-optic cable that can carry twice that many will go into service. By comparison, the original transatlantic telephone link, laid in 1956, required two separate copper-cored coaxial cables several times as thick as the fiber-optic cables to handle 51 simultaneous phone calls.

Fiber-optic cable's present call capacity is only a fraction of its potential. "If we had all the necessary electronic equipment at the ends," says Frank Gratzer, a manager at Bellcore, "you could carry the entire telephone traffic in the United States with one fiber, and that's at the busy hour, combining both voice and data traffic. The capacity is essentially unlimited." He adds that it might be decades before we can invent the electronics to harness this capacity, however.

Like all cables, fiber-optic lines have their natural enemies. At sea, the threat can be a deep-ocean landslide or a failure in the repeaters spaced at regular intervals to regenerate the signal. It turns out that sharks like to gnaw on the cables, so undersea lines have a special casing that discourages such munching. On the continental shelf, the dangers are commercial fishing boats and ships dragging their anchors. AT&T keeps a fleet of cable ships on 24-hour notice for just this sort of emergency.

Not long ago I visited the Cable Ship *Long Lines*, on the Baltimore docks. It is more than 500 feet long, carries a crew of 89 and stores more than 4,000 miles of coaxial cable and fiber-optic lines. After it gets a call to repair a copper or fiber-optic cable, it steams to the damaged section with help from ultraprecise navigation systems and from diagnostic equipment built into the cable. The crew uses grapples to hook the cable. They snip it first, then pull up each end for splicing. A repair can take weeks or months, depending on weather and luck. In the meantime other cables or satellite links must pick up the traffic.

On land, the enemies are floods, excavating crews and occasionally children. AT&T technician Doug Woltman tells a story about a boy who was found playing on a beach in New Jersey, trying to drive a nail into an armored telephone cable that had been exposed by a storm. "He had a little pile of bent nails nearby," Woltman says.

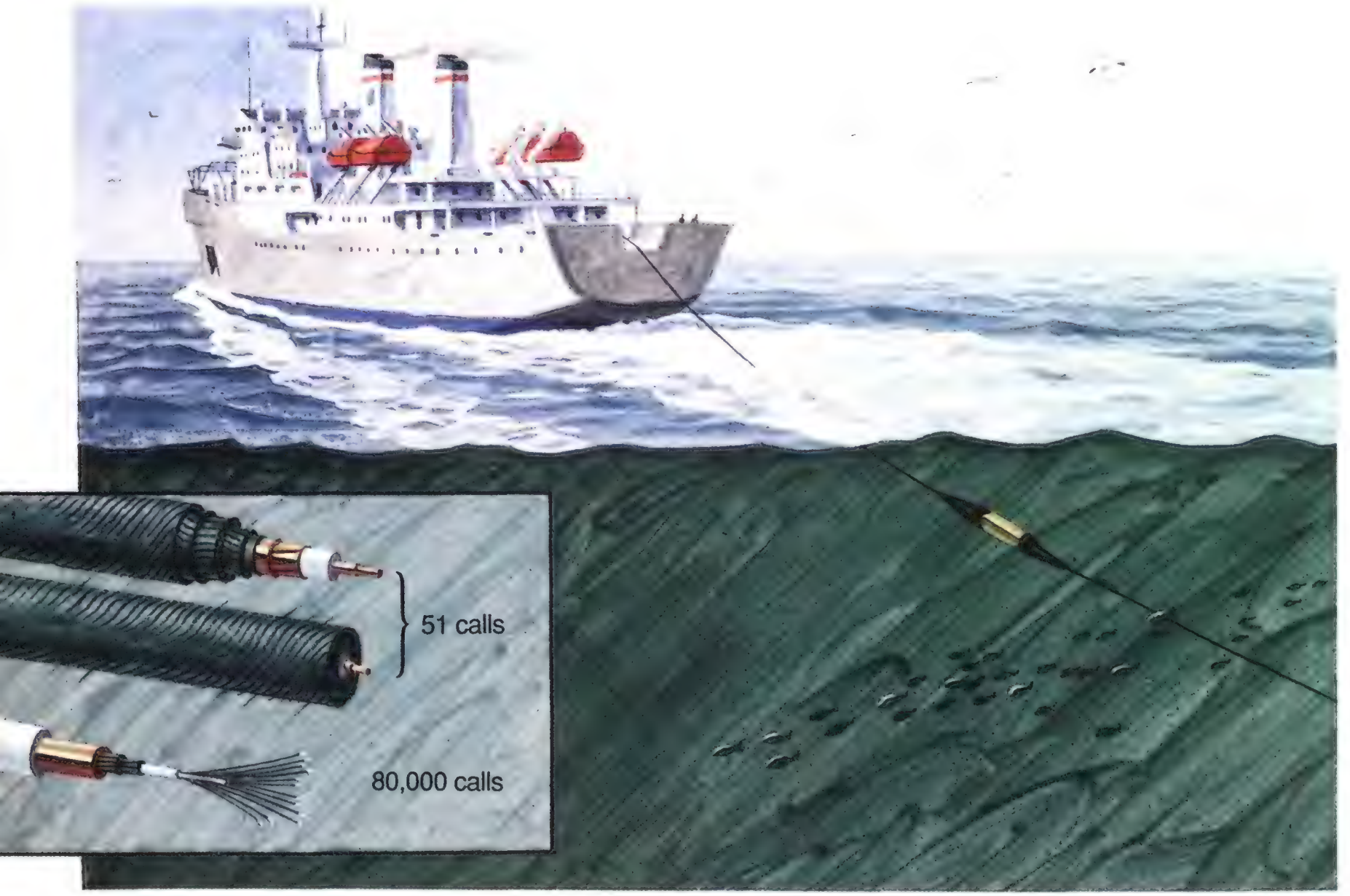
The advent of wireless pocket phones means someday people may receive personal phone numbers at birth.

All telephone companies do their darndest to prevent damage from occurring in the first place. They plant thousands of signs warning of cables nearby and advertising a toll-free number to call before digging. Every day, a fleet of airplanes informally called the AT&T Air Force patrols 40,000 miles of cable routes, as well as the stretches of continental shelf where transoceanic cables come within a few hundred feet of the surface. A shrimp boat spotted working near a cable will receive a flurry of message tubes from above, warning the skipper away.

Gil Broyles, a WilTel spokesman, recounts a 1990 incident in which a company inspector in Missouri, making his rounds, noticed a farmer operating a tractor with a power auger, digging postholes along a cable route. The inspector stopped his car and walked over to offer a warning. "The farmer was only on his second posthole when the inspector came up," says Broyles. "Unfortunately, he cut our cable on the first posthole."

Fiber optics' potential is promising enough to trigger hours of daydreaming about what the future might hold if every house had a hookup in the wall. How about the entire contents of the Library of Congress flashing through every few minutes, making any book or record or television show ever produced available for your computer to grab so that you can browse it at your leisure? Perhaps someday, but don't burn your local library card just yet. "Most changes in the system are quite incremental, because the invested base is so huge," says Frank Gratzer of Bellcore. "You just can't make changes overnight." Running fiber optics to every home in the country will require a major effort that could take decades.

In my research I find many examples of new equipment operating side by side with the old. The onshore equipment for the new transatlantic fiber-optic cable, TAT-9, is housed in an addition to the same red-brick building, dated 1940, on the New Jersey coast that houses radio operators for AT&T's High Seas Radiotelephone Service. High Seas operators have been placing phone calls to and from ships via shortwave radio since 1929.



A cable ship lays fiber-optic transoceanic line. The yellow "repeater" on submerged cable regenerates the signals. Inset compares older coaxial cables (top) with fiber-optic that can handle 80,000 calls at once.

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Another good place to see the old and new together is on Hudson Street in Manhattan. Here, in the basement of an old brick building, is what looks like a disaster waiting to happen. In this one place, the telecommunications links of six long-distance companies share a common exchange. If an accident of some kind—a fire, say, or a power failure—were to disable some or all of this equipment, the impact on phone and data traffic could be incalculable.

A telephone in the outhouse?

Then there's the telephone system in Wawina, Minnesota. It's served by Northern Telephone Company, which is headquartered in the basement of Bob Riddell's farmhouse. Northern's 34-year-old switching gear is in a cement-block building across the county road from Riddell's mailbox. Northern's customers have had one-plus dialing and direct international dialing for years. With 33 paying phone lines, Northern is exactly one line larger than the smallest known American telephone company. Diminutive though it is, Riddell says Northern receives paperwork and product literature from telecommunications services and businesses by the boxload anyway. "They don't care if you have 30 subscribers or 30,000," he says. "But anything I don't understand goes in the black file in the other room." He explains that the "black file" is a wood stove. "If it's important they'll call back, and I ask 'em to send another copy," he adds. Besides taking care of his subscribers' phones, Riddell also maintains 30 phones that are scattered around his farm. He can call home from virtually any location, including the clothesline, the outhouse and the chicken coop. "I can even dial 117, 122 and 132 in the morning and get the kids out of bed," he says.

Riddell has no immediate plans to replace his old mechanical switch because it still does the job. The new computerized switches are oversize for such a tiny phone system, he says, and they need more care and feeding than he can afford. "Once you buy one, you're always buying software upgrades."

In time, though, even Riddell's old equipment will pass on, making room for the latest gear. What might we expect in the coming decades? Phone companies are very excited about the prospect of something called the personal communication network, or PCN. This is a wireless pocket phone you could take to any city and be in constant touch. Just think: someday people might receive personal phone numbers at birth and carry them the rest of their lives. Much of the basic technology needed to create a global network of personal phones already exists.

Many in the industry think Americans might buy more than 100 million PCN telephones, says Ashok

One little Minnesota phone company is swamped by new-product advertising; much of it ends up in stove.

Ranade, a Bellcore manager in radio research. But expect some holdouts. "A lot of my friends would abhor the idea of having a phone in their pocket all the time," says John Davis, vice president of network development for Bell Laboratories.

In the years ahead, telephone companies would like to break free of their traditional reliance on handling voices, and leap over conventional television into the business of delivering high-definition TV (HDTV). Already Japanese households can receive HDTV signals for an hour each day over tiny satellite dishes. Researchers at Bellcore are convinced that for this country it makes more sense to pump HDTV into millions of homes over fiber-optic phone lines.

Scientists at Bellcore's different locations in New Jersey can chat with one another, face to face, through a "VideoWindow" designed by the company. I watch it work at a Bellcore building in Red Bank, New Jersey. It's an eight-foot-wide rear projection TV screen, framed by wood, and set into a wall about midway between floor and ceiling. Four Bellcore employees walk up and sit at a table positioned in front of it, and look across the table at a lifesize image of four of their coworkers taking their seats in a similar setting many miles away. The audio and video signals pass through a high-capacity phone line.

This is fine for old-fashioned meetings, but a lot of people do all of their work on computers. Sudhir Ahuja believes it will be possible to bring teams of these people and their computers together, through the telephone lines, in what he likes to think of as an imaginary conference room. Ahuja's testing ground is a

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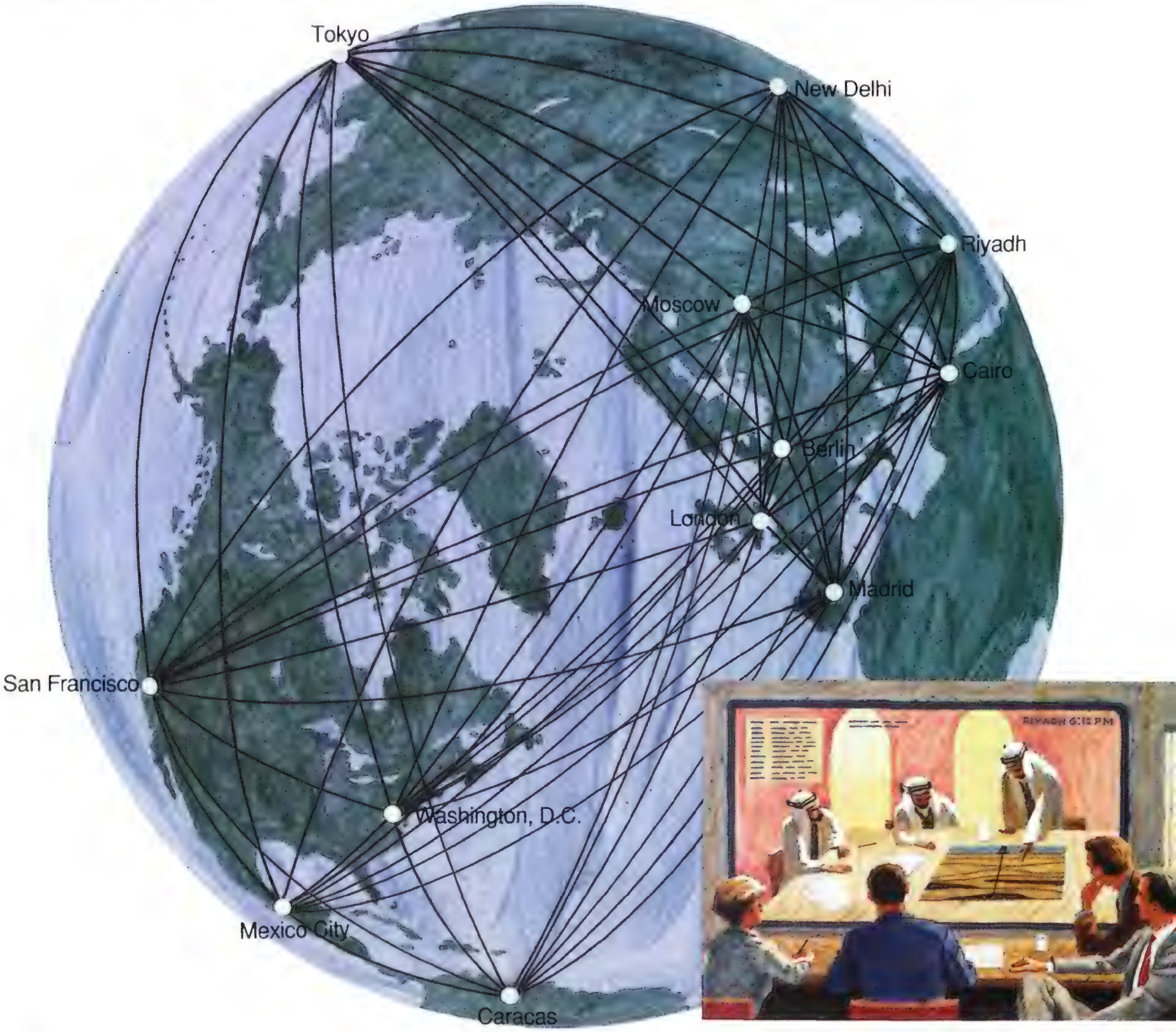
fourth-floor workshop at AT&T Bell Laboratories, near Holmdel, New Jersey. Ahuja, smartly dressed and brimming with enthusiasm, is the head of Bell Labs' research department for integrated computer communications. His group is trying to work through all the details of a computer-telephone system that, in effect, will allow up to 12 participants anywhere in the world to work on the same project while looking over everybody's shoulders.

Ahuja demonstrates by sitting me down in front of an oversize computer screen while he calls up several other offices' phone numbers. A row of tiny video pictures gathers at the upper left to show the people in our conversation, each at their own computer. We can talk via speakerphone. We can bring new documents to the conversation and show them on the screen, including videotapes. And we can all make changes to columns of text on the screen.

In a full-blown conference, the participants would call in experts via the phone lines when needed. Those experts would in turn call still other consultants from around the country, who would throw in files of their own. All on that one screen. It leaves me feeling slightly dizzy. "Of course, the billing is going to be horrendous to figure out," Ahuja says, adding, "I hope somebody else can solve that problem."

Artist's futuristic rendering of a global teleconference shows links that might be required in a hypothetical 12-party call. Inset depicts executives in Washington, D.C. sitting in on meeting that's under way in Riyadh, Saudi Arabia. The Saudis are able to see, hear and talk to their American counterparts on similar screen.



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Cone coffeemakers are at their best when you use Melitta extra-fine ground coffee.

European coffeemakers—the kind with cone-shaped filters—are designed to brew better coffee. Unlike basket-style machines that create dry spots, they concentrate coffee under the water, causing gentle turbulence that saturates and steeps coffee for fuller flavor and aroma.

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SHE TAKES MY HAND. WE DANCE. AND SOMETHING

THAT WAS THERE BEFORE, WAS BACK. ONLY STRONGER.

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Minister gives praise at Metropolitan AME Church, Washington, D.C. *Photograph by Jason Miccolo Johnson*

Keeping a music tradition alive (opposite), youngster plays his horn on a New Orleans street. *C.W. Griffin*

A self-portrait of black life

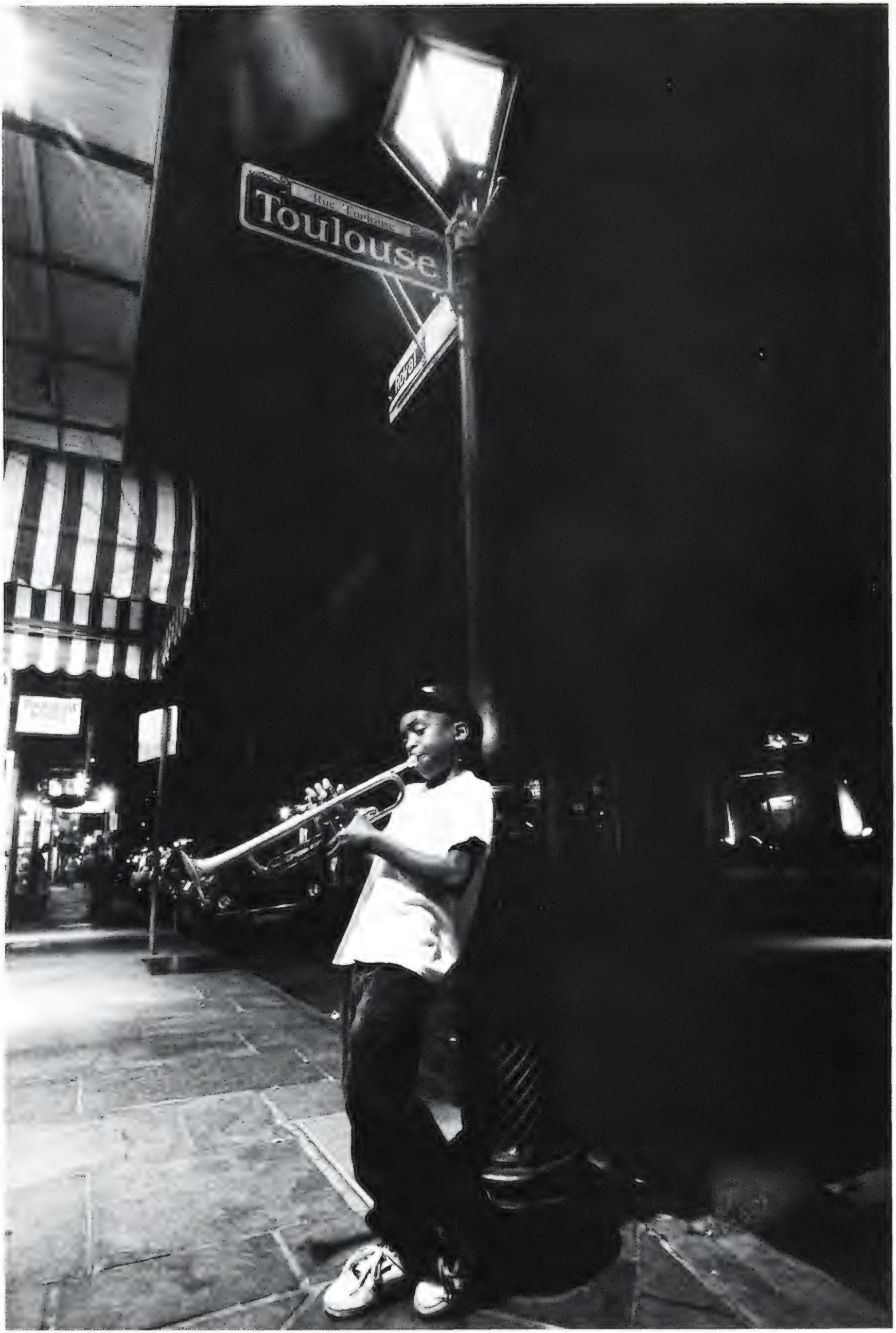
Songs of My People, *an introspective new book and exhibition of photographs, reflects the diversity of African-American culture*

A couple of years ago, three inspired journalists summoned 50 black photographers to the Corcoran Gallery of Art in Washington, D.C. for a special project. The assignment: Black America. The photographers, including several Pulitzer Prize winners, fanned out around the country. They trained their cameras on chic Manhattanites and on children playing on dusty Appalachian roads, on a Texas rodeo and Sunday sermons, on a conductor of the Chicago Symphony Orchestra as well as a 10-year-old boy blowing the blues on a New Orleans street corner. They also found discordant notes: a homeless family, a gang member giving his salute, a disquietingly high percentage of dark faces in a string of prisoners.

These diverse images make up *Songs of My People*, an expansive portrait of African-Americans today. An exhibition opening at the Corcoran February 15 displays 150 of the 214 photographs, published as a book by Little, Brown, a subsidiary of Time Warner, the sponsor of the show. It will tour 23 cities under the Smithsonian Institution Traveling Exhibition Service.

Songs of My People includes some celebrities and recognizable faces, but most are "ordinary people doing ordinary things"—that was the mission, says D. Michael Cheers, who, with fellow photojournalist Dudley M. Brooks and writer Eric Easter, created and edited the project. For many who participated, it was an opportunity to turn their cameras inward, to depict aspects of their lives as they saw them. "I wanted to show that black people are people like everybody else," says Bob Black, who photographed two youngsters cooling off in a city fountain. "So often our image is distorted in the media. What you see is one extreme or another—a Michael Jordan or a rapist. I wanted to get the people in between, to show the whole range of what black people are."

Marian Smith Holmes


Rue Toulouse
Toulouse
Royal

Two boys find the cascading waters of a downtown Chicago fountain irresistible on a hot day. *Bob Black*

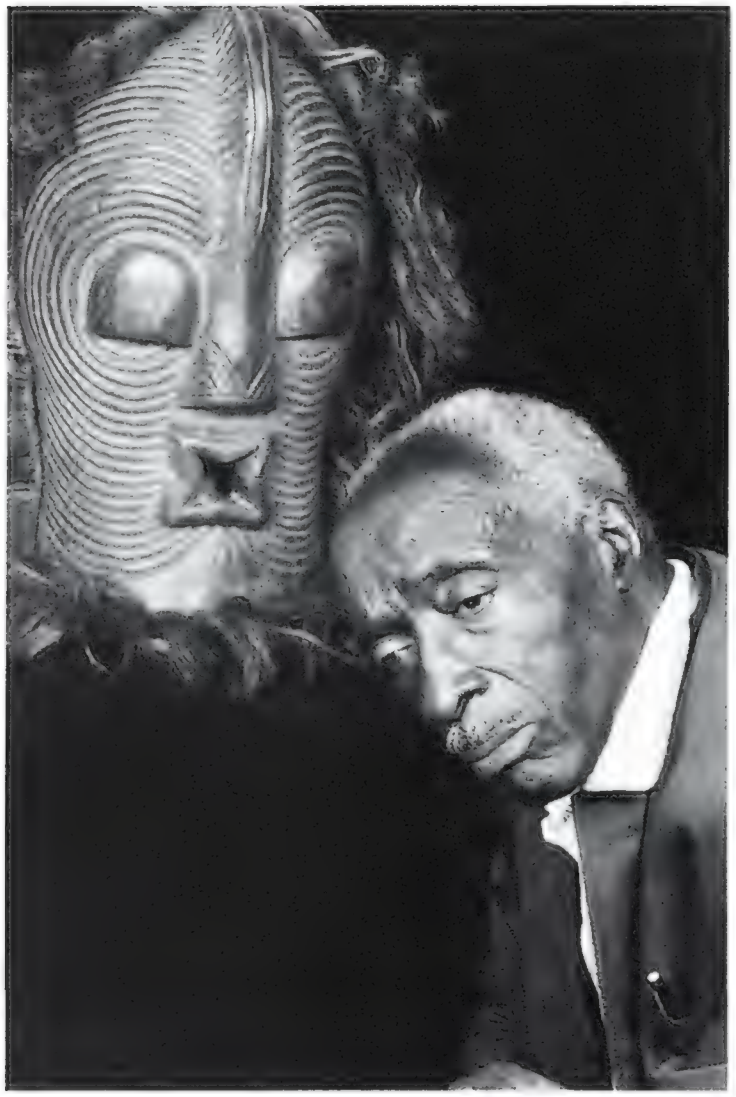
In San Francisco, a father interrupts chores for an impromptu waltz with his daughter. *Bruce Talamon*

Member of the Oblate Sisters (left), founded 1829 in Baltimore, bows in prayer. *Dixie D. Vereen*

Gary Hines (below) is director of Sounds of Blackness in Minneapolis. *Earl Anderson*

Aziza Ali takes favorite doll to Muslim prayers at Masjid Muhammad, Washington, D.C. *Ron Ceasar*

Attallah Shabazz, daughter of Malcolm X, produces plays in Los Angeles and New York. *Kirk McKoy*



A baby girl in Washington, D.C. is comforted by a pair of loving and protective arms. *Dixie D. Vereen*

Dr. Andre Tweed of Los Angeles has a vast collection of African art, including Zairian mask. *Lester Sloan*

Mother Clara Hale, 86, founded a home in Harlem for drug- and alcohol-addicted babies. *Bruce Talamon*

New Yorker Gordon Henderson strolls with Melanie Landestoy, who models his fashions. *George Chinsee*

World-champion calf-roper Fred Whitfield lassos a critter at Cleburne, Texas, competition. *Keith Williams*

Bo Diddley (right) greets fellow music man John Lee Hooker in New York. *Jacques Chenet*

Parishioners linger after service at Mother Bethel Church in Philadelphia. *Marilyn Nance*

Boy wends his way home in tiny coal-mining town of McRoberts, Kentucky. *Durell Hall jr.*

Air bags, Hugo Mellander believes, are giving people a false sense of security.

Mellander is head safety engineer for Volvo in Sweden.

"I don't think people realize an air bag is designed to work in conjunction with a seat belt and only in frontal impacts," says Mellander, "furthermore, frontal impacts account for only 36% of all accidents."

How will a car react the other 64% of the time? In side impacts (20% of all accidents)? In rear end collisions (7%)? Rollovers (12%)? Multiple impacts (17%)?

"These are the questions people should be asking," says Mellander.

These are the questions the engineers of Volvo have been answering for over 60 years.

Volvo engineers pioneered crumple zones to absorb crash energy.

The 3 point self adjusting seat belt was invented by Nils Bohlin, a Volvo engineer.

Volvo began putting a steel reinforced passenger cage into all their cars not last year, or five years ago, but three decades ago.

"The increased focus on safety by the car industry and the public pleases us," says Mellander.

"Now that people have their eyes open to the importance of safety," he adds, "they should understand the differences between how car companies approach safety."

These differences have never been more evident than in the new 960.

A car that is years ahead of meeting government standards for side impact protection.

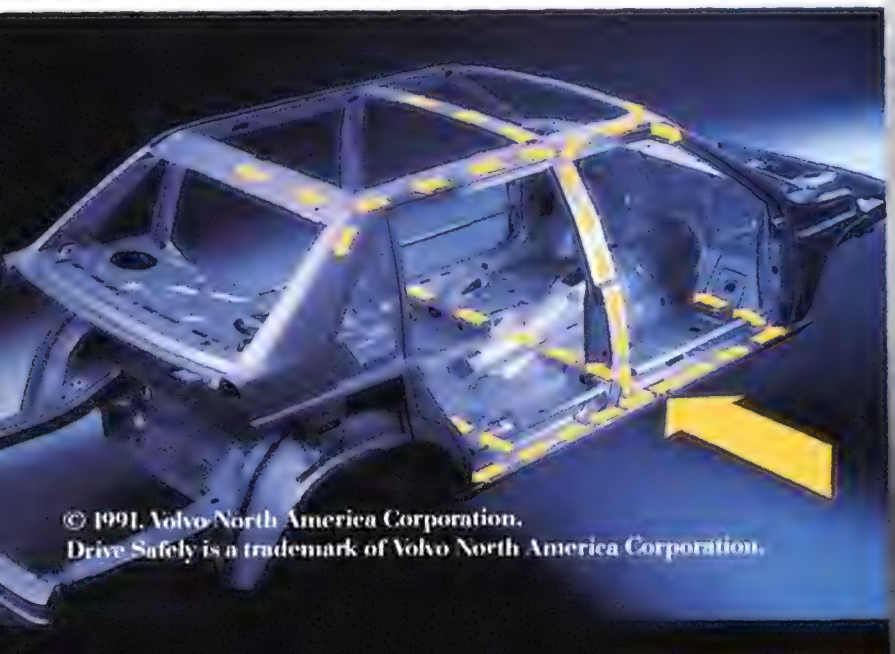
The first Volvo to have a 6-cylinder, 24-valve engine coupled with a sophisticated drivetrain adaptable to driving conditions.

A car that Mellander believes is the epitome of everything Volvo has ever learned about building automobiles.

"It is the ultimate proof that safety is not something you can just add on to a car, but rather has to be engineered in from the very beginning."

Drive safely.

VOLVO



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AN AIR BAG IS ONLY AS GOOD
AS THE CAR IT'S ATTACHED TO.

Amid tiny sampling of bodacious fruits of his labors, the veggie king shows off some of 190 tomato varieties.

By Israel Shenker

Zealous defender of the faith rules a vegetable realm

Monarch of a verdant kingdom, Victor Renaud resuscitates, cultivates, propagates, promotes edible nobility and commoners in his gardens

His right hand rests on a green pumpkin, his left on the prolific, eminently preservable Malabar gourd.

Like Napoleon I, France's Victor I stands close to the soil. In repose, his countenance is a triangle broad at the top, a Jerusalem artichoke. When his beard-fringed face relaxes into laughter, it forms the great pumpkin, a perfect circle. His eyes are the pale blue of artichoke thistle leaves, and they burn with missionary zeal for the tranquillity and well-being of his subjects. A blue worker's smock above blue jeans is his robe of office, his scepter a venerable hoe. Is it mere fantasy to believe that as he reviews his rows of runner beans and squash, they hail the chief and snap to attention?

Joan of Arc was the savior of her country, and Charles de Gaulle the savior of his country's honor. Victor Renaud is the savior of his country's vegetables. In a nation that honors gastronomy with learned societies, charismatic chefs, stars and dithyrambs, Victor Renaud is monarch of the vegetable kingdom. His books, articles, lectures, seminars, broadcasts and displays defend the cause of organic cultivation, the preservation of rare vegetable species. *L'Express*, the French weekly, hailed him as the "emperor of forgotten vegetables." While thousands clamor to save the whale, the dolphin, the white rhinoceros, Renaud struggles to rescue from oblivion the drumhead cabbage, the burnet pimpernel, the violin gourd, the hypochondriac amaranth and the bean dignified as the "nun's navel." Is there a potato festival at Crevant? Victor I will be there, beaming behind an array of his vegetables. Is it time for the international Salon of Agriculture? His Majesty will be on hand, bestowing grace and favor, exhibiting the fruits—vegetables—of his collaboration with nature. He does not sell his produce, but as homage to a brother-overlord, he sent off a lavish cornucopia for the delectation of President François Mitterrand. In France, prophets are not without honor: Renaud has been made a Chevalier in the Order of Agricultural Merit.

The rarity of fine palates

Lesser mortals seek standardization and develop commercial hybrids: he inveighs against the treachery of genetic manipulation, against the loss of nature's lavish bounty, against products that sacrifice nutrition and taste for commercial advantage. "We're supposed to be progressing," said Renaud, "but there's never been so much illness, so much boredom and stress." When a researcher from the National Institute for Agronomic Research boasted that he had developed an endive that was not bitter, Renaud was shaken to his roots. "That's the worst thing you've ever done," he proclaimed. "The bitter taste has practically disappeared everywhere," he lamented later. "We must hold on to every flavor we have. Fine palates are getting rarer all the time." At one public gathering, he was asked how his relations were with the research institute. "Excellent," he replied. "They ignore me."

In the annals of royalty, his is an unlikely reign. Born 56 years ago in a Breton village, son of a professional gardener, he was a late-blooming recruit to glory, with no inkling of the heights ahead. Leaving school at 14, he turned his back on the soil: what he dreamed of was achievement as a professional cyclist or circus clown. Instead he became a farm servant,

Photographs by Pierre Boulat

Native to Mexico, the ram's horn, or unicorn plant, produces horned fruit that is used for pickles.

Tree, or Egyptian, onion is one of very few plants that bear fruit both above and below the ground.

a school waiter and then a conscript in the French Army, sent off to the Algerian War. On his return, he found employment as a lathe operator in a large factory making aeronautic radar and antennas. There he worked for 30 years.

Daily he left home at 6:30 A.M. for a long commute to work, returning home exhausted at 7 P.M. He eventually cultivated a small vegetable garden to help feed his family—a wife and three daughters. A chance conversation one morning on the bus, with a man who usually slept on the way to work, led him to write away for a correspondence course on organic gardening. To him, the texts were a revelation.

Peaceful coexistence in the garden

After work each day, he threw off his weariness and headed out to the garden for a revivifying labor of love. What began as arduous toil became consuming passion. Day after day he noted down his observations. Soon he used his pen to correspond with other gardeners, communicating his zeal, exchanging seeds and conclusions. He gathered hundreds of vegetable varieties, royally furnishing the family table.

When he moved to Presles, a town of 3,500 outside Paris, closer to the factory, he got home at 4:30 with lots more time for the garden. In 1982, still employed as a blue-collar technician, he bloomed as author of a 286-page work entitled *Le Potager Au Naturel* (*The Natural Vegetable Garden*).

His work dealt with soil condition, compost, fertilization, crop rotation, the benefits of the sun and all the tricks of the shade. He opposed preliminary deep digging, convinced that it disturbs nature's order; he advised digging down to about six inches so the aerobic bacteria would still be near the top of the soil, the anaerobic down where they belong. This was a monarch who plumped for peaceful coexistence and the policies to assure it. Thus, pumpkin could be planted by corn, not by potato; tomato flourished with basil, onion, fennel or asparagus, not by bean or cucumber. There was counsel on how to fight pests without chemical pesticides, and what to do about weeds. He dealt with all the p's and q's of vegetable life—*planter, protéger, préserver, propager, préparer,* vegetable by vegetable, winding up with *quantité et qualité.*

In 1988 he offered, with Christian Dudouet, a triple-header—*Le Potager par les Méthodes Naturelles, Un Trésor de Santé* (*The Vegetable Garden by Natural Methods, A Treasure of Health*). As in the earlier book, Renaud began with the p's, proceeding with Cartesian rigor to the quiddities of individual species and varieties in alphabetical order from Absinthe to Valerian. Included were Amaranth, Cape Gooseberry, Giant Garlic and Good King Henry (vaguely resembling spinach and

At annual October open house Renaud led visitors through his garden, apologizing for effects of drought. Patiently, he answered questions with tips and advice, sold seeds to aspiring gardeners eager to emulate him.

technically *Chenopodium bonus-henricus*—named for predecessor Henri IV of Navarre, whom Renaud describes as a "great defender of botany"). The tuberous-rooted chervil (*Chaerophyllum bulbosum*) carried a health warning: its leaves are toxic. But the root, prepared like a potato, is excellent with turkey. As for skirret, served on the best tables in the 16th and 17th centuries, it is an excellent dish fried with sugar and orange juice. There were even two vegetables to serve as surrogate court jesters. The prickly caterpillar, *Scorpiurus muricatus*, was a vegetable resembling a caterpillar, to include in salads as a joke. Another jape was shield lucerne, whose husk resembles the shell of a snail and is not to be consumed.

Listed for each variety were common and scientific names, life cycle, ease of cultivation, family, description, geographic origin, uses, properties, flowering period, flowers, optimal soil and climate and orientation, care, harvesting, biological enemies, commercial suppliers of seeds (when available), and names in English, German, Spanish, Italian and Dutch. But beyond prosaic fact was wisdom, descanted, often in epigraphs, for enlightenment and wonder. "Doesn't the quality of life begin in the plate?"; "Gardening is the enemy of boredom"; "So many people walk the earth without respecting it"; "Gardening is a school of patience."

"The vegetable garden occupies the mind, gives work to the body and nourishes it," Renaud suggested. "It's agreeable to see plants grow, and it's a pleasure to give the family fresh vegetables—products that are natural and healthy. What more could one want?" Well, for one thing, we might want guidance on what to do with the vegetables, which parts to eat and which to discard, and how to prepare delicacies for the table. All this Renaud provided. Here were suggestions for squash cake, stuffed turnips, Japanese artichoke with cream, as well as details on enough medical benefits to throw a mortal scare into the medical profession. Not one to leave a field untilled, Renaud even provided a glossary of vegetable slang and humor. In French, to "have an artichoke's heart" is to be superficial, fickle; someone "in the cabbages" is comatose. *Mon chou*

The author admits to being assistant gardener to wife Mary in their Scottish garden, where the vegetables are luxuriant stands of parsley and garlic and chives.

Victor Renaud rules his vegetable realm

(my cabbage) is a term of endearment, roughly equivalent to "my sweet" or "my love." A *salade* is confusion, and how comforting to achieve the status of a *grosse légume* (big vegetable)—a bigwig.

A year ago, Renaud welcomed an opportunity to devote himself full-time to cultivating his gardens and preaching his gospel. In addition to the thousand-square-meter vegetable garden at home, he has another that's half as large a mile away. Here there are 24 municipal allotments, each rented for a nominal $15 a year. "I have quiet neighbors," said Renaud, taking a rake from the back of his Renault van and nodding toward the adjoining cemetery.

The garden at home has heavy clay soil, while his municipal allotment is sandy, so he can choose varieties according to soil type. Renaud notes with approval the example of municipalities that provide hundreds of allotments, and is campaigning to get every French community to set aside land for its citizens' vegetable gardens: "Every community has a sports field—why not a vegetable field?"

On this day, blessed with intermittent rain, Renaud, whose missionary work has delayed his gardening schedule, is the only one tending an allotment. He begins by stirring up the earth with a large five-pronged fork, breaking up the soil further with a hooked fork, meanwhile removing any wild grass. "I'm a bit of a maniac," he apologizes. "Others can plant in grass. I don't find it normal." He sets out a line, marking 50-centimeter intervals, firms in a stake at each interval and scoops a hole in front of each stake. Into each hole he tosses a handful of organic compost and sets a tomato seedling, firming it into place and watering it. Finally, he notes on a rough plan the location of each and every variety.

In a few weeks he will have 190 varieties of tomatoes—red, orange, yellow, white, violet, black, red with yellow stripes. They will be round, oval, pear-shaped, cylindrical, medium and small. "Isn't it better to cultivate a medium-sized tomato with good taste than a big tomato full of water?" he asks.

His potatoes run the gamut, with varieties especially fit for soup or mashing or french fries or baking in the skin, which the French term *robe de chambre* (dressing gown). This means lots of rare varieties, such as July Beauty, Northern Star, Royal Kidney, Snowflake, Early Rose, Ideal, even the very precocious Victor.

The kingdom is full of wonders. In a gram of soil there are as many as four billion microorganisms. Some vegetables have seeds so minuscule that—as with watercress—there are 5,000 to the gram. Fermented alcohol from the Jerusalem artichoke, when blended, can go right into a car's gas tank and serve as fuel, but Renaud also cherishes the plant as a "friend of the liver." It is said that the common rue repels serpents; surely aphids shun it. Vegetables are commonly so perishable that unless consumed directly after harvesting they lose nutritional value. Renaud likes to say that research proves that supermarket lettuce—washed, ready to eat, packed in plastic, sitting for a few days on the shelf—has zero nutritional value. "Nothing except cellulose," he laments.

At every dinner, Renaud likes to have salad and vegetables, rejecting none. "There are only two or three things in life I don't like," he said, "but they're not vegetables." Pressed, he admits minimal rapture for only a single variety—*Oenothera biennis*, evening primrose. He's just wild about broccoli—"the best of the cabbages." Renaud was taken aback to hear that President George Bush had said he would never eat broccoli again. "What America needs is a *Green* House," he announced, and—making a pun on the President's name—suggested that he could not possibly be a *fine bouche* (gourmet).

The demotion of vegetable soup

Gourmets may treasure the good old varieties, but every year seed catalogs abandon more of them in favor of fragile hybrids that Renaud finds tasteless and expensive. Hybrids are hits with suppliers, since purchasers find them difficult to propagate.

Despite the monarch's best efforts, soup—certainly vegetable soup—which used to grace French tables, has declined in favor and is now considered a dish for the poor. Renaud is not amused: "The result is that people go to pharmacies and doctors and it costs the National Health Service an enormous amount."

But the French gourmet still finds vegetables listed as separate courses on restaurant menus, and will often follow the main course with a vegetable course, beautifully prepared, delectable to consume. In Britain and

the United States, a vegetable is often treated as punishment (having itself first been punished in the cooking). Not in France.

The magazine *Rustica* features a column entitled "The Marvels of Victor," and Renaud has recently published his third book, *Les Légumes Rares et Oubliés* (*The Rare and Forgotten Vegetables*). He nourishes plans and plants for additional volumes—on tomatoes, on potatoes, on pumpkins, gourds and squash. He wants to write a book on how to cook vegetables, and he would like to start a school for vegetable gardeners.

"I have invented nothing," he said. "My aim is to bring out the value of old varieties—much more resistant, with better taste and often of superior nourishment, better acclimated to the region, to the nature of the soil. To me these plants are worth more than the *Mona Lisa*."

Every two years he throws his gardens open to the public. Last time 1,500 people arrived to trample the soil of his living museums. The open day was October 5, when Victor I was on hand, democratically offering words of simple advice. Now that he is free from his lathe, he is ready for the pantheon in which he is not merely a monarch but also a certified *grosse légume*.

Master gardener presents a venerable five-pronged fork, which he uses to aerate (not to turn over, horrors!) the soil. In the foreground is a flourishing stand of red, or garden, sage, used for centuries as a seasoning.

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By John Fleischman

The labyrinthine world of the Scrapbook King

An obsessive packrat and gifted inventor, Theodore Ashmead Langstroth II was his name and collecting was his favorite game

Even happy families have secrets that run with no statute of limitations. Twenty years after my mother died, I discovered she had kept a scrapbook. It was delivered to me inside an old chest of drawers left by my father, who survived her by 18 years. The drawers were stuffed with memories and junk: his legal papers, his beloved mandolin sheet music, his college yearbooks and, in among some old photographs, a battered, yellowing composition notebook—a scrapbook kept by my mother for a short time in 1934. I was shocked.

My mother was a thrower-outer—the scourge of packed closets, the emptier of overfilled drawers. I was a bringer-backer. We once clashed over my cherished tennis shoes, which she mistakenly took to the garbage simply because I was stuffing cardboard in the soles to plug the holes. I had to rescue them twice.

Ours was a fundamental clash in human nature, surely as old as the species itself. Some of our hominid ancestors were gatherers who also picked up bright pebbles; others were hunters of clutter who demanded: "Can't we get rid of some of this stuff?" From those who amassed, we have museums, libraries, attics that groan. From the winnowers, we have public sanitation, rarity (if everything were saved, nothing would be rare) and a way to the front door.

Scrapbooks of 19th-century trade cards and die-cut emblems typify eclectic 120-volume Langstroth trove.

How, then, to explain my mother's scrapbook? Quotations. Pictures. A mildly rude cartoon about a fat lady speaking on the telephone. It seemed inexplicable: it wasn't personal, the pithy sayings weren't familiar, the cartoon wasn't that funny. Of all the ways to pile up the nonessential, surely such a scrapbook is the worst. Collecting is a different matter. If you seek to possess a fine example of every U.S. airmail stamp, you have a chance at achieving totality. By definition, though, a scrapbook is nothing but pieces, scraps of something—the paper equivalent of worn-out sneakers.

Enter the Scrapbook King, Theodore Ashmead Langstroth II, to put it all in perspective. He was long gone before I made his acquaintance, yet I think he would have enjoyed our first meeting, at which I was looking for one thing and came away looking for something else. If there was one guiding principle in his life it was this: you never know what you'll find.

We met at the downtown Public Library of Cincinnati and Hamilton County. I was trying to pin down details of a local painter and showman named John Rettig (1858-1932). The library yielded up a few standard sources, along with a catalog card describing a six-volume "scrapbook" compiled by one T. A. Langstroth. "What's this?" I asked. "Oh, that's a Langstroth," answered the librarian. "What's a Langstroth?" "Here's your number," he said, stuffing my call slip into a pneumatic tube to the stacks.

The first of the scrapbooks was bound in green imitation leather, the cover studded with enameled metal bosses. Picked-out in stick-on letters of colored foil, the title page proclaimed: "The Colorful World of John Rettig." I turned the page and fell down the rabbit hole, landing not in Wonderland, but in the Colorful World of T. A. Langstroth, scrapbooker extraordinaire.

Pieces of lost Cincinnati—and Paris

Langstroth's scrapbooks were not merely books about Rettig and the German city-within-a-city where Rettig grew up; they were actual pieces of that lost Cincinnati. Beyond clippings, Langstroth pasted onto his pages original letters, rare photographs, artifacts. There were tickets printed in German for masked balls at long-razed Turner Halle (Acrobat's Hall); campaign ribbons for Millard Fillmore and James G. Blaine; stone lithographs (a city specialty); costume sketches and programs from Rettig's outdoor epics, complete with foldout panoramas of the sets, blocking scripts, a stagehand's cue sheet and a canvas section cut from a backdrop; an inventory of Rettig's own press-clipping scrapbooks; his original watercolors and his penciled memoir of a 1903 visit to the Paris studio of sculptor Auguste Rodin. "He [Rodin] asked me to take the only chair unoccupied," Rettig wrote. "I said I could not be

Ted Langstroth perused scrapbook in his Cincinnati apartment as he sat amid the clutter of his collections.

seated in the presence of the Master when he said, 'Oh, sit down.' He was standing, leaning on the outstretched hand of Victor Hugo's nude."

All this came with Langstroth's commentary, annotations and, sometimes, carefully typed whimsical asides. The ultimate scrap was an oil portrait of Rettig himself, painted on a 5-by-9-inch wood panel by Edward Potthast, an art school chum who had left Ohio for wider fame. Today, as examples of American Impressionism, Potthast's East Coast seaside scenes fetch substantial sums. One bright day, Rettig and Potthast painted each other. The painting of Potthast is lost, but there at his portable easel sits Rettig. Potthast "framed" the panel with a painted gold border. Langstroth mounted it on tinfoil before pasting it down (opposite). "Do you know what you've got here?" I asked the librarian. "Langstroth? Oh, we've got dozens by him," came the reply. "Show me," I said.

So I tackled the card catalog, looking for a White Rabbit named Langstroth. He had nearly a drawerful to himself—I counted some 120 scrapbooks (he also donated rare books and uncatalogued oddities). His range was bewildering: the 54th Massachusetts Colored Infantry; chewing-tobacco labels; sheet music covers; the Great Blondin, who walked a tightrope across Niagara Falls; World War I flying aces and the war poet Joyce Kilmer; Christmas and Memorial Day cards; turn-of-the-century opera and theater stars, in the "People Who Pleased Our Parents" category; Japanese prints; 1830s needlework samplers; paper made from tobacco stalks; railroads and Ohio River steamboats; steel bond engravings; calendars and trade cards; ceramics painters and church painters; a circus evangelist; early amusement parks; blackface minstrel troupes; Civil War "rebellion" envelopes.

Langstroth also collected other people's scrapbooks, which he then refurbished. One was compiled by a friend of the 1920s female impersonator Julian Eltinge (p. 84), whose real name was William Dalton. Page after page of publicity shots, all inscribed "For Pal Bill," document the "Feminine Characterizations"—Marie Antoinette, Cleopatra, a Red Cross nurse, a bride, a flapper. Bill also kept the promotional fliers ("Coming to your city this season! The Handsomest Woman on the Stage is a Man—Julian Eltinge!"); an obituary describing a stage-door fistfight in which Eltinge acquitted himself manfully after hoodlums "ribbed him about being a swish"; and a clipping dated December 21, 1949: "Of the straight female impersonators, there is no doubt that for makeup, class and box office draw, Julian Eltinge was the tops."

In the library's Rare Book Room, I spoke with

John Fleischman wrote about new diggings at old Troy in the January issue. Temperamentally unfit to keep a scrapbook, he admires the people who do.

He often rotated paintings and ornate ceramics; chest at lower left once belonged to the Bonaparte family.

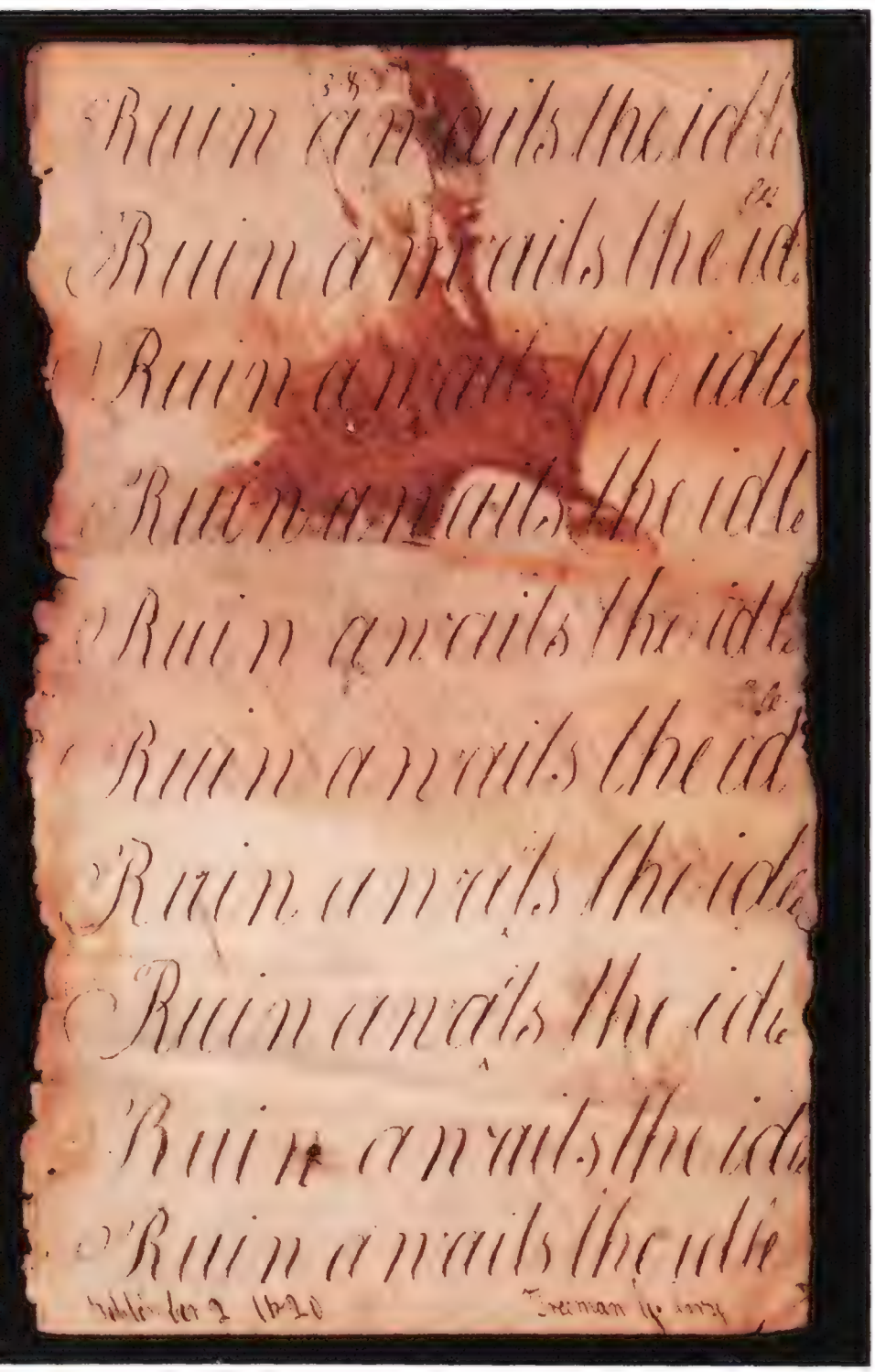
curator Alfred Kleine-Kreutzmann. Of Langstroth he said, "I know only three things: he was some sort of chemist; he was a packrat; and I wish he hadn't used paste." Eventually I came up with a few facts. "Ted" Langstroth had come to Cincinnati in 1950 as an ink chemist for a local company (thus the scrapbooks on printing). A tireless collector of ceramics, artwork and rare books, he piled his horde in a series of apartments around town until his retirement in 1975, when he bought a derelict Methodist church downriver near the Indiana town of Vevay. There he spread out. A reporter who visited him in 1977 described a glittering, chaotic treasure house—paintings, pots, boxes of photographs, heaps of old books, stained-glass panels, eccentric furnishings. But beyond that, the mystery persisted. The library was sure he had died in 1978 or '79—no one was certain. Research was launched. They would get back to me.

I also needed a better background on scrapbooking.

Watercolor from scrapbook about painter John Rettig has a brightly colored frame that Langstroth made.

American Impressionist Edward Potthast's oil-on-wood portrait of friend Rettig is mounted on foil in book.

What was its history? For some answers I turned to the world of collectors. I called Terry and Ralph Kovel, who follow the world of collectibles for their publications and TV show (SMITHSONIAN, November 1980). Scrapbooks are a funny area, Terry Kovel told me. She has seen all kinds: ledgerlike books that 19th-century businesses used in place of file cabinets, with every bill and canceled check pasted in place; postcard and paper-doll scrapbooks; "personality" or "event" books on single topics, such as the Dionne quintuplets or the crash of the *Hindenburg*. "And then there are people like myself," she said. "When I got married I started a scrapbook of stuff about my family, stuff that is of interest only to me. And, I might add, I am ten years behind in mine."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Ruin did not await Freeman Grant Cary, 10; he copied the maxim—and became Benjamin Harrison's teacher.

The narrowest category is also the most avidly collected, according to Kovel. "Scrap" was a 19th-century trade term for what collectors call die-cut printed paper ephemera. The man to talk to was John Grossman, in Sausalito, California. A graphic designer and antique-paper specialist, he is the author of *A Victorian Scrapbook*, which showcases part of his 100,000-piece collection. Commercial scrap dates from the early 1800s, he explained, when printers sold sheets of small woodblock and steel engravings that were meant to be cut apart, hand colored and pasted into blank books. The concept goes back at least to the 18th century, when European women of means filled leather-bound, hand-tooled "albums" with copied verse, original watercolors and small prints. "Printing was so expensive in earlier periods," Grossman said, "there wasn't a lot to paste down unless you took apart a book. And most people couldn't afford books. Paper itself was expensive."

Scrapbooking became democratic in the 1860s, when chromolithography, die cutting and embossing unleashed a flood of cheap, brightly colored scrap. Some scrap was given away to promote soap and cigars; some, "real scrap" (p. 87), was sold directly for scrapbooking, which became a mania among women and girls. "It's hard to realize, now that we're surrounded by colorful printing," said Grossman, "but in the early 1800s everything was still black-and-white. When these cheap, highly colored scraps came along, the public just couldn't get enough of them." Today, complete Victorian scrapbooks and pieces soaked out of them by dealers are the heart of a lucrative collectors' trade.

But Langstroth himself remained elusive. While my search for his obituary widened to Vevay, I pressed on in the library, where he was rolled out by the cartload. The early volumes, assembled in the 1960s, are done with relatively crude paper, but over time he refined his materials. Some of the "scrapbooks" are actually boxes of bundled sheets. Some books contain only a dozen or so items. A single card file entry yields a 13-volume work on 19th-century lithography.

After the Civil War, an explosion of color

He collected heavily from Cincinnati's once flourishing color-lithography industry. Just after the Civil War, the city had 14 big chromo and litho houses that churned out calendars, cigar-box lids, sheet music, greeting cards, postcards, circus posters. He also foraged for early color work from New York, Philadelphia, London, Paris, Amsterdam and a half-dozen German cities.

Ten—or was it 20?—books into the pile, I began to see a method behind all this minutiae. Langstroth was not a scholar in the conventional sense; he had specialties but followed no narrow interest. Instead, he seemed to collect whatever there was to collect,

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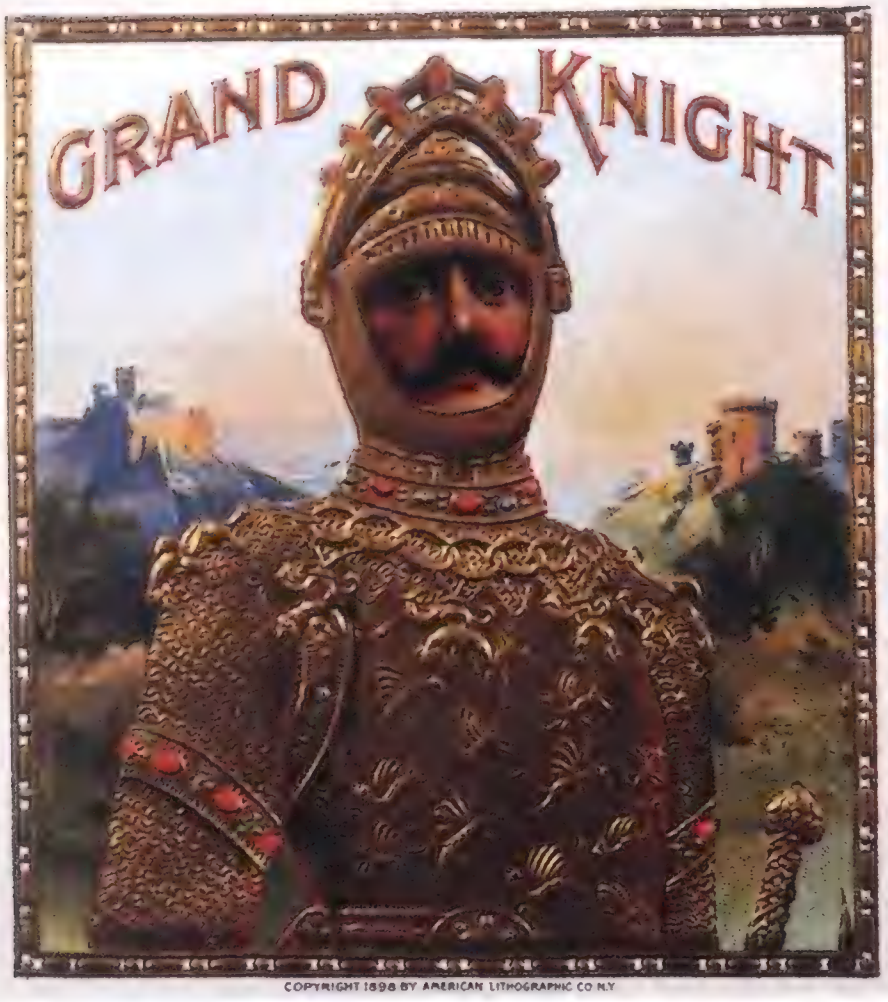

Lavishly embossed golden armor encases 1898 knight in scrapbook titled "Lithographic Art Cigar Labels."

Book on 1920s female impersonator Julian Eltinge had been compiled when Langstroth found, refurbished, it.

reminding me of the father of British history, the monk Nennius, who prefaced his chronicle by declaring, "I have heaped together all that I found." Langstroth had been a heapmaker of epic proportions, but he sorted all he had found into smaller piles and labeled them. Once he had a good-sized heap, he made it into a scrapbook and presented it to the library.

The books' titles were only moderately helpful, their contents always unpredictable. The cigar-box labels, for example, provided a propagandistic history of the Spanish-American War. Admiral Dewey, White Fleet and San Juan Hill were all cigar brands. Cigar art also offered a window into the male sexual fantasies of the age. Freud may have said "Sometimes a cigar is just a cigar," but after looking at dozens of labels featuring voluptuous, cigar-smoking women I began to wonder.

The mystery finally unraveled in the Cincinnati library files, which contained the date of Langstroth's death, and in the Vevay public library, where an obituary provided the details. He had died of heart failure in Vevay on August 29, 1978; there were two sons in California. That night I spoke with Robert W. Langstroth, the younger son. His father, he said, had been a colorful if physically distant parent. Robert's parents divorced when he was still a boy, and he and his brother, Theodore III, grew up in New Jersey, seeing their father infrequently. They visited him in Cincinnati and Vevay, but only Theodore III lived with him for any time in Cincinnati. The facts of his father's life could be gathered up, he said, but he urged caution. His father was a spinner of tales, some of which entered family lore but would probably be hard to pin down (e.g., the story that he invented the stripe in Stripe toothpaste—a claim that proved impossible to trace). Robert said his father was a workaholic, a relentless traveler, a gifted inventor—he held many patents on printing inks—and that he enjoyed his company but was reminded of that old cartoon character Major Hoople, someone larger than life and somewhat fabulous.

Calls to Theodore III and to an uncle yielded up a biography of sorts. Ted was born in East Orange, New Jersey, in 1910, the middle son of three. His father traded in wholesale lumber and pilings in New York City. The Langstroths and the Ashmeads (his mother's people) were old Germantown, Pennsylvania, families with offshoots into the Philadelphia Drexels. A great-

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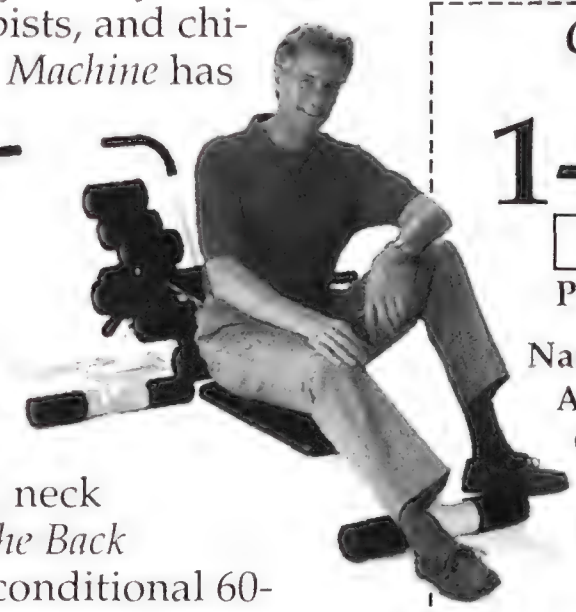

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Picture of Clara and Nicholas Longworth is a print from one of glass negatives rescued by Scrapbook King.

uncle was Lorenzo Lorraine Langstroth, the "Bee Man of Oxford, Ohio," inventor of the first commercial beehive frame.

The greatest influence on young Ted came from his bachelor uncles, James and Charles Langstroth. Lawyers, they practiced for a year in Philadelphia, then homesteaded a ranch outside of Silver City, New Mexico, on the edge of the Gila Wilderness. In this unlikely setting, they assembled one of the finest collections of Dickensiana and English literary first editions of their day. Eleven-year-old Ted visited in summer 1921 and came back bitten by the collector's bug. "Whistler's letters were everywhere," he recalled in his scrapbook on the trip, "and in a bread box on a table in the kitchen, there were twenty Dickens letters."

The same year, Ted's father was diagnosed with tuberculosis, and the family moved to be near him in a Pasadena, California, sanatorium. Ted graduated from high school and went to Pasadena Junior College. When his father died, the family returned to New Jersey. That was apparently the end of Ted's formal education. Everything after was self-taught.

Langstroth worked as a dye chemist in New Jersey, in Pennsylvania (his sons remember the day their dad accidentally turned the local river bright red from bank to bank—you make mistakes, he told them, and then you move on) and in New York, before his marriage broke up. He moved to Cincinnati soon after, and except for a stint setting up a dye factory in Mexico, lived in the area the rest of his life. Business took him regularly to Europe and Japan. Why Cincinnati took so strong a hold on his imagination is a mystery to his children. Everything about the place seemed to interest him. He was fascinated by Lafcadio Hearn, the writer who found his vocation in sensational reportage in Cincinnati before shoving off for eventual fame as the first Western interpreter of Japan (see *Book reviews*, August 1991). But he was equally enthralled by the local career of Doris Day, née von Kappelhoff. That scrapbook, however, has disappeared.

A network of tipsters to call in new leads

Both sons remember accompanying their father on prowls for material. He dragged them to auctions, junk shops, bookstores, attics—to everywhere that held out the promise of an overlooked trunk, an undistinguished box of books, an old scrapbook he might recycle. He had a network of tipsters—fellow collectors and local historians who were always calling with leads. To his older son, his apartments were scenes of total disorder that only he could decipher. How he managed to move it all to Vevay is another mystery. Theodore III, who visited at the time of the transfer, left without realizing that his father was, in fact, moving.

Langstroth looked everywhere for material, but he was also lucky in his timing. He arrived in Cincinnati just as urban renewal and Interstate highway construction were destroying the oldest parts of downtown. The wrecker's ball was driving any number of dusty boxes, locked suitcases and abandoned trunks into his eager hands. From a Cincinnati camera club came one of his great prizes, a wooden box holding glass negatives from the 1870s. They turned out to be informal portraits of the Longworth family, one of the city's prominent clans. Pictured in gingham shirt and ragged trousers at about age 8 was Nicholas Longworth III (above), future Speaker of the House of Representatives and husband of Theodore Roosevelt's daughter Alice, she of the sharp tongue.

The Scrapbook King collected bits of lost time. He unearthed the papers of Freeman Grant Cary, an early Cincinnati educator remembered, if at all, as the man who taught the three Rs to future President Benjamin Harrison. In Cary's scrapbook the treasures are his schoolboy handwriting exercises. On September 5, 1820, he was set a list of moralistic maxims to copy out. In letters two inches high, the maxims march down the page: "Youth is full of hope," "Scandal is hateful" and Langstroth's favorite, "Ruin awaits the idle" (p. 82). To

look at that confident, if slightly shaky, handwriting is to see 10-year-old Freeman Cary at his desk, tongue between his teeth, carefully tracing out the words.

Langstroth made up his own rules of scrapbooking. One "volume" has a lump of coal wired into it (actually it's a box devoted to W. H. Perkins, the inventor of coal tar dyes). Another is a blue-velvet jeweler's case; inside are two stones collected, on a trip to Japan, in Lafcadio Hearn's garden at Matsue. On the lid, Langstroth put the appropriate Hearn quotation: "Until you feel, and keenly feel, that stones have characters, that stones have tones and values, the whole artistic meaning of a Japanese garden cannot be revealed to you."

What can a scrapbook reveal about its compiler? From Langstroth's I constructed my own picture of his methods and motives. He was an obsessive packrat who came to the scrapbook format gradually. The lithographic material lent itself to albums; I think he started giving the books to the library partially to make room at home. But I don't think he ever saw the books as storage containers. They were singular creations in their own right, statements as much about the mind of Ted Langstroth as about John Rettig or coal tar dyes. They served another function, too: they recalled the joys of the hunt. It was the finding, not the possessing, that thrilled him, and the books were the mounted trophies of his safari through the gatherer's life.

You never know what you'll find. After a hundred or so Langstroth scrapbooks, I found myself reconsidering my mother's short-lived effort. In 1934, she cut out wise sayings by Edna Ferber, Will Rogers and Abraham Lincoln, among others. There was a poem by Rupert Brooke, a sonnet by Shakespeare, a scene from a play by Oscar Wilde, and one long theological passage she hand-copied from a book by Fridtjof Nansen, the Norwegian explorer. My mother being so long gone, I have no way of discovering why these clippings seemed worth preserving when she was 22, or why she abandoned the effort but saved the scrapbook. I did know that by 1934 she was living away from home and working in a Manhattan dental office as a hygienist, a good job in hard times. I think she was finding her own way, in literature, politics, the world; the scraps were part of that process. Looking back after marriage, after children, after jobs as a union organizer and a fighter-plane riveter, maybe she saw something else in that slim compilation. Better than any photograph or letter, perhaps the scrapbook recalled the time of coming into herself. She could never part with that. You keep a scrapbook to remember.

Bouquet from 19th-century scrapbook exemplifies "real scrap," printed specially for snippers and pasters.

© 1991 Saturn Corporation. Cheryl Silas is pictured with a 1992 Saturn SC.

A policeman at the accident, Officer Jimmie Boylan, thought, "She's lucky to be alive." Cheryl had just stepped out of her totalled Saturn coupe. Upon impact, her shoulder harness and lap belt held her tight as the spaceframe of her car absorbed most of the collision. He watched as Cheryl's sport coupe and the other cars were towed away.

The following week, Cheryl made the return trip to Saturn of Albuquerque and ordered another SC, just like her first. And then we started noticing some rather unconventional "referrals."

A few days later, Officer Boylan came into the showroom and ordered a grey sedan for himself. Then a buddy of his, also a policeman, did the same. And shortly thereafter, Cheryl's brother, more than a little happy that he still had a sister, and needing a new car himself, bought yet another Saturn in Illinois.

But the topper came when a very nice young woman walked into the showroom to test drive a sedan. She said she just wanted to know a little more about what our cars were like. Not that she was going to buy one right away, or anything. She'd just never seen a Saturn up close until she'd rear-ended one out on the highway several weeks earlier.

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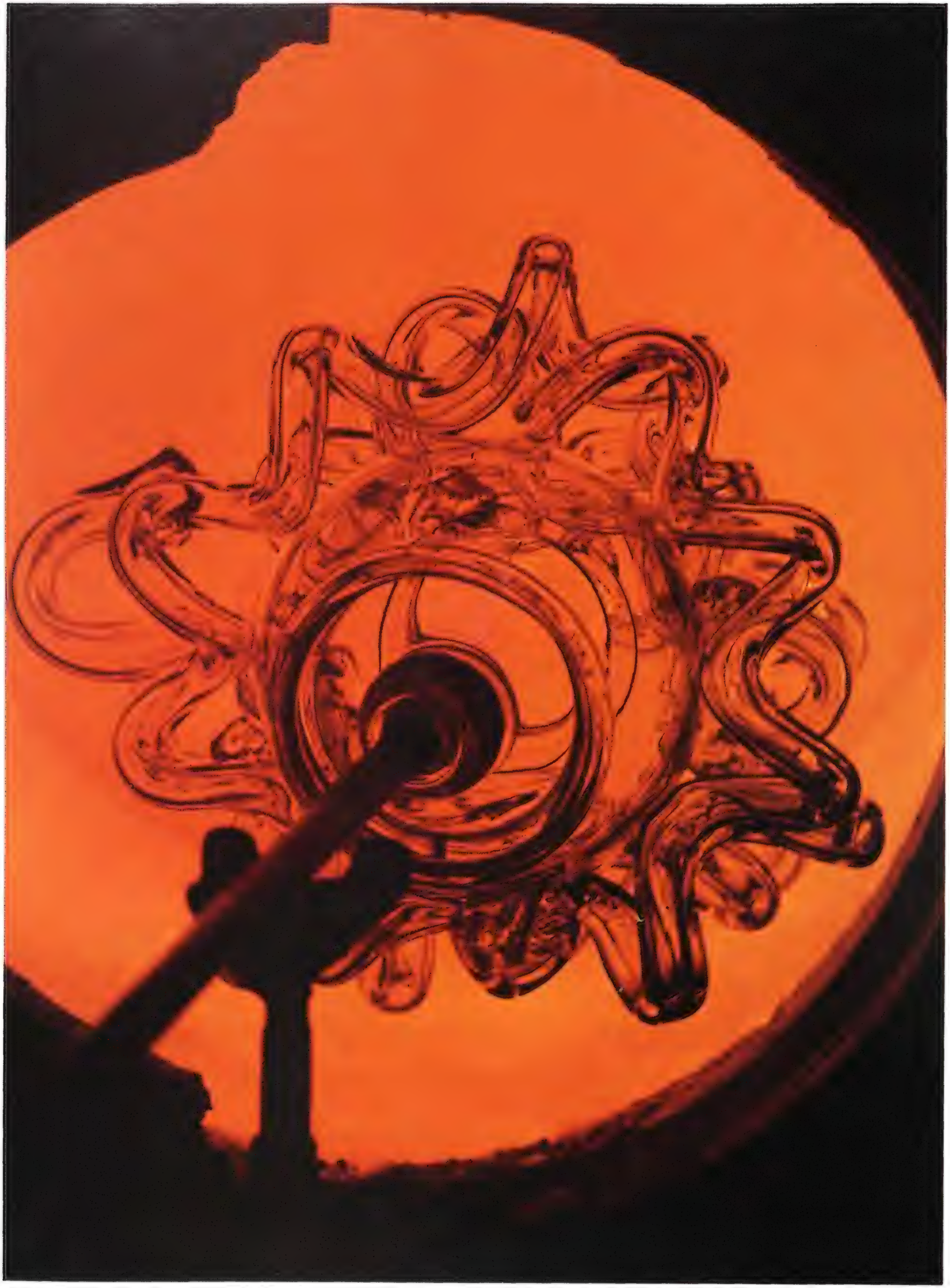


Opposite: Twirling at the end of a long punty rod, a work in progress is heated in the 2,500 F "glory hole." At the Boathouse (above), his combined living quarters and studio in Seattle, Chihuly keeps projects going.

Dale Chihuly has turned art glass into a red-hot item

Born in fire, his fragile forms are in demand by museums and collectors—and the founder of the Pilchuck School is just getting warmed up

By Jon Krakauer

From the street, the studio known as the Boathouse doesn't look like much. A sprawling waterfront structure sheathed in corrugated metal, its outward appearance suggests a welding shop or perhaps an abandoned cannery. But the building's humble exterior, dripping forlornly in the Seattle rain, is mere camouflage. In fact the Boathouse shelters a rollicking, hyperkinetic hive of art in the making, a scene so charged with heat and noise and unbridled energy that it makes the average MTV video clip look soporific by comparison.

The heart and soul of the studio is a high-ceilinged inferno called the hot shop. Along the perimeter of the 30-by-65-foot room, white-hot flames lick from the open doors of a half-dozen blast furnaces and a like number of propane torches. The roar from all that fire, though considerable, is nearly drowned out by the rap music pulsing from a bank of massive loudspeakers. A swarm of young people dressed in regulation artist garb—faded jeans, funky berets, T-shirts, sunglasses—rock and shimmy to the tune's insistent throb as they tend the furnaces and swing long steel pipes, at the end of which hang dripping gathers of molten glass.

Presiding over the action is a thick, stubby barrel of a man with fleshy features, a natty black eye patch and an unruly thatch of frizzy brown curls. Behold Dale Chihuly, one of only three American artists ever to have held a solo show at the Louvre. His stock-in-trade is blown glass—big, flamboyant, astonishingly

A team at work: with Chihuly supervising, Charles Parriott (left) and Rich Royal (right) inflate a piece.

Royal maintains the temperature of the spinning, almost finished work as Chihuly studies the results.

Wearing a fireproof suit and mittens, Brian Brenno prepares to put finished piece into an annealing oven.

sensuous works. Hailed far and wide as a virtuoso, perhaps the greatest glass artist of the 20th century, he also happens to be endowed with a Warholesque genius for self-promotion, and an accelerator that always seems to be jammed to the floor. In the words of Seattle arts writer Bruce Barcott, Chihuly "plays a song of himself at a breathless pace."

Chihuly, perhaps more than any other individual, has given blown glass the respectability of fine art. As recently as the mid-1970s there was no market to speak of for contemporary art glass in this country. Today Chihuly's pieces command as much as $60,000 each, with multipiece works selling for six-figure sums; and his creations reside in New York's Metropolitan Museum of Art, the Smithsonian's Renwick Gallery and some 80 other museums here and abroad.

Among Chihuly's various quirks, perhaps the quirkiest is that the master glassblower has only rarely blown any glass himself since 1976, when an automobile accident robbed him of sight in his left eye. The ensuing loss of depth perception made it all but impossible for him to safely manipulate the five-foot-long blowpipe and other arcane tools of his trade. Chihuly had been collaborating with other glass artists for some time to produce his elaborate designs. After the accident, undaunted, he simply trained a cadre of apprentices to

As Brenno steadies it on padded barrel, Chihuly and Royal smooth the bump on top where rod was attached.

The huge ball of glass, one in artist's current Niijima Floats series, will be cooled gradually over 36 hours.

shape the glass to his specifications. He continually fine-tunes this approach. The team that presently toils in the hot shop—numbering 14 on this particular morning—gives form to the artist's vision with the efficiency of a well-oiled machine. "We're like an orchestra," explains one of Chihuly's gaffers, or head glassblowers. "Dale doesn't play an instrument, but he's the guy up front with the baton."

The symphony begins with Chihuly standing at a cluttered drafting table, chin in hand, lost in thought as his assistants scurry to and fro preparing a batch of glass. The contemplative lull is over in a matter of seconds. He grabs a stick of charcoal and abruptly puts line to paper in bold, slashing strokes as ideas bubble to the surface of his consciousness like trout rising to a hatch of mayflies. Exchanging charcoal for a paintbrush, he then daubs on a wash of color that might be concocted from ink, watercolors, wine, coffee dregs, or a glass of bitters and soda water—any tinted liquid within reach is fair game. Two minutes after starting the sketch, Chihuly's wool slacks are spattered with paint, and the blueprint for the first piece is completed: a rough-edged rendering of a sleek, voluptuous cylinder wrapped in vinelike tendrils.

After tossing the sketch onto the concrete floor to dry—a somewhat irreverent way to treat a painting that

Blowing bubbles that freeze in time

will itself have a price tag of $3,000—Chihuly starts another one, completes it just as quickly and then dashes off renderings of two more pieces. When the color can be trusted not to run, an assistant affixes the paintings to a nearby blast furnace with refrigerator magnets, where the team can consult them as they work.

Transforming these flat sketches into three-dimensional pieces of glass is a trickier, more labor-intensive task, imbued with a degree of drama seldom associated with the making of art. If nothing else, a Chihuly blow is usually pretty good theater. Today, a tall, loose-limbed former student of Chihuly's, Richard Royal, is acting as guest gaffer. To start the process, Royal sticks a blowpipe into a furnace containing a pool of clear glass heated to 2,500 degrees F. By repeatedly dipping the pipe into the syrupy liquid, Royal builds up a 30-pound, watermelon-size bubble of glass on the business end of the pipe. Next, the bubble—still colorless save for a menacing orange glow—is given a sheen of deep, brilliant turquoise by rolling it across a steel plate sprinkled with tinted glass dust, after which it is thrust into a second furnace, the "glory hole," which fuses the color to the piece.

A second layer of color—a leopardlike pattern of purple splotches—is similarly applied, and then the blowpipe is laid horizontally across a nearby workbench, where the shaping of the piece begins in earnest. Spinning the wobbly, semimolten bubble so that it doesn't droop off the end of the pipe, Royal begins by cooling the surface of the glass with a sponge of wet newspaper to give it a "skin"; as he does this, one assistant screens Royal's hands with a pair of fruitwood paddles to block the heat radiating from the glass, while another assistant kneels at the far end of the pipe and blows with all his might through its hollow core. His face flushed from his exertions, he slowly inflates the nascent objet d'art like a kid blowing up a gigantic wad of bubble gum.

Over the next hour, the pace of creation becomes increasingly frenetic, the dramatic tension more acute. The tiniest mistake can destroy the piece at any point during the complex process. Sweat dripping from their brows, Royal and his comrades carefully push and pull and carve away at the searing bubble to coax it into the desired shape, resorting to gravity and an arsenal of ingenious tools—some of them invented by Venetian glassblowers more than a thousand years ago, others devised only recently by Chihuly's crew.

Gathers of molten glass are repeatedly brought from the furnace, pulled like incandescent taffy into fragile coils and other embellishments, and bonded to the surface of the emerging sculpture. The crew is now in constant motion, working in alarmingly close proximity with flaring propane torches and blobs of dripping, red-hot glass; at times a dozen hands are flying over the piece at once. Each move is tightly choreographed, and the crew performs as smoothly as a crack team of cardiac surgeons. Nobody is burned.

"Glassblowing is tricky—a lot can go wrong"

Every two minutes throughout the entire process the piece must be carried from the workbench to the glory hole for reheating, lest the glass grow overly cool and become too brittle to work—or worse: the previous day, as it was nearing completion, an elaborate vaselike form worth tens of thousands of dollars cooled a little too much while being shaped at the bench, and consequently exploded when it was returned to the glory hole. It was the third piece that had bitten the dust that day. "Glassblowing is a tricky business, especially when you're pushing the edge of the envelope, when you're trying things this big and intricate," Royal explains philosophically. "A lot can go wrong. Some days everything you do turns out like magic and you're a hero; other days you lose most of the pieces you attempt."

While his craftsmen labor to transform molten glass into lasting art, Chihuly hovers nearby, offering words of advice and encouragement, cranking up the stereo to a window-rattling volume to stimulate the flow of creative juices. The rap music has been replaced by a Beatles CD. As the speakers blare, "Baby you can drive my car / Yes, I'm gonna be a star,"* the artist lip-syncs the lyrics, pumps the air with a raised fist, and executes a slick little dance step that would do Ickey Woods or Michael Jackson proud. "Oh boy, we've got ourselves a big unit here!" Chihuly calls out to Royal, admiring the three-foot-high piece. "We've got ourselves a nice one!"

The author, a freelance writer who lives in Seattle, has written in these pages about wigs, October 1991; trees, April 1990; and surfing, in June 1989.

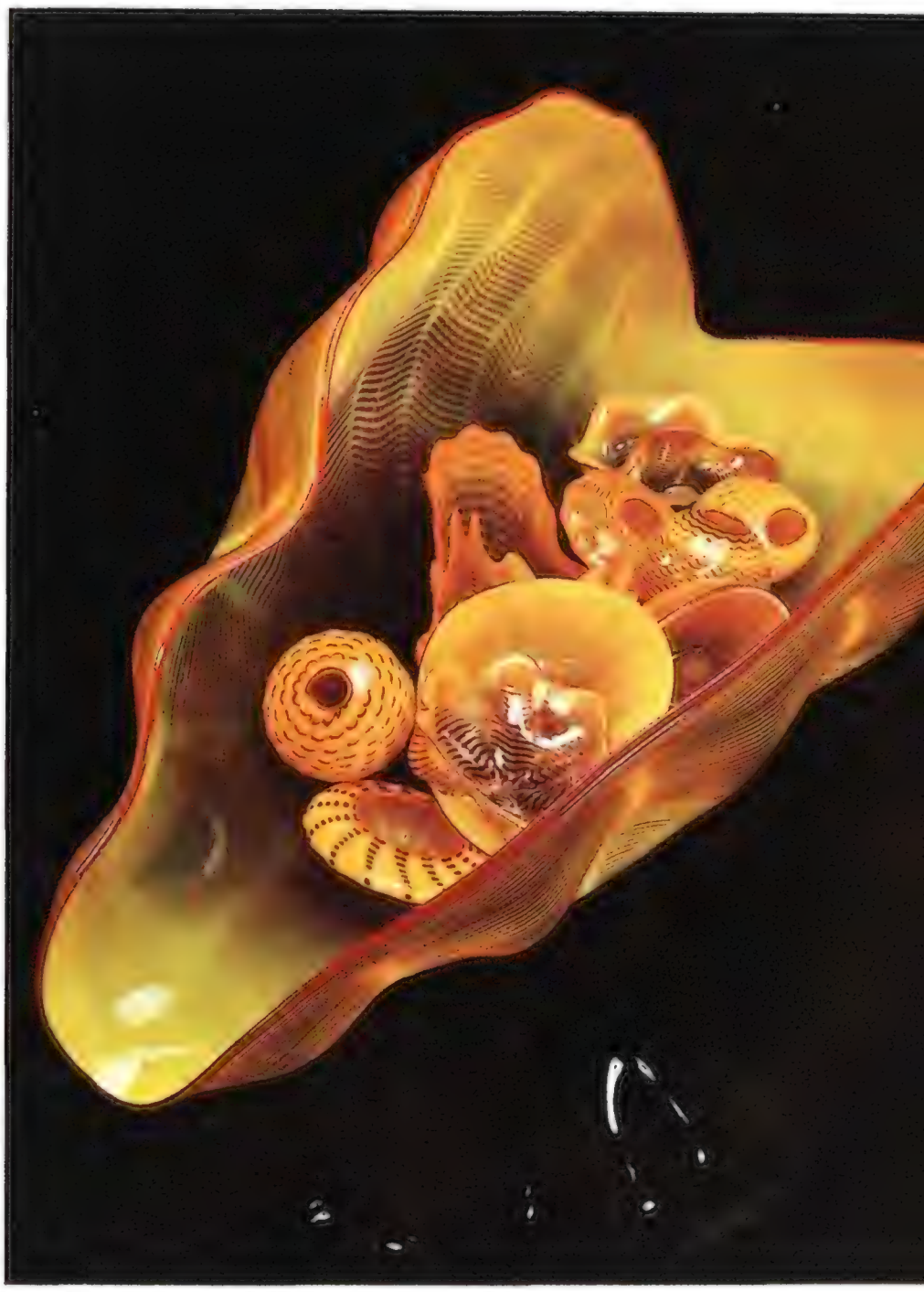
* "Drive My Car," Lennon/McCartney

Chihuly was inspired to create basket sets (above and on the cover) after seeing Northwest Coast Indian baskets.

Unusual colors characterize the Macchia ("spotted") series; at left, *Violet Macchia with Red Lip Wrap*, from 1990.

Green and Gold Venetian (1990), 23 inches wide, is from artist's most voluptuous and exotic series.

Cadmium Yellow Seaform Set with Red Lip Wraps (1990): each form was blown in a ribbed mold.



Original housing at Pilchuck School was right out of early '70s vernacular.

Two decades later, the school has come of age, its lodge and other buildings designed by Seattle architect Thomas L. Bosworth.

Chihuly directs the work in the hot shop with a light touch. Indeed, once his sketches are tacked to the furnace wall and the blow is under way, the artist gives his team surprisingly free rein to interpret his ideas as they see fit. "I rely heavily on the intuition of my craftsmen," says Chihuly. "It would be a mistake to try to exert too much control. I think it would kill the vital spark. Chance is a crucial ingredient—the unpredictability of the glass, of the colorist, of the gaffers. My job is to be a catalyst—to set the wheels in motion, keep the energy level high, and let things happen. I love how every time these oven doors open you're presented with another surprise."

Chihuly doesn't apologize for the fact that he no longer blows the glass that bears his name. Louis Comfort Tiffany didn't craft his own pieces in the 19th century, nor, after his early years, did Tiffany's brilliant contemporary, the Frenchman René Lalique. A number of history's most hallowed painters and sculptors, including Michelangelo, Bernini and Rubens, relied on large teams of craftsmen or apprentices to assist in the execution of their art. The car crash that blinded Chihuly in one eye nearly killed him. "I went through the windshield in a bad way," he says. "A doctor put 250 stitches in my face. It took me six months to recuperate. The accident forced me to hand the blowpipe over to others, but you know, I think maybe I was ready to give it up anyway. You lose the big picture when you're sitting at the bench all day."

Were Chihuly still sitting at the bench all day, he would also find it difficult to juggle the countless other affairs that absorb him intermittently throughout the course of the blow. In addition to the hot shop and the artist's palatial living quarters, the Boathouse shelters a gallery, a mock-up room (where the floor plans of distant galleries are replicated before every show, so that pieces can be selected and arranged for optimal effect), a photography studio (Chihuly believes that pictures of his work are as important as the objects themselves, because so many more people can be exposed to the former), an extensive slide library and a bustling business office.

A stream of people trickles constantly through the hot shop with matters that require Chihuly's attention. Page proofs for a catalog need to be checked. A caller from Japan is on the line with a question about an upcoming installation in Kyoto. A fax from a museum in Czechoslovakia requires a reply. A mechanic wanders in with a progress report on a vintage Aston Martin DBII that Chihuly is having restored. An assistant hands Chihuly a finished, soon-to-be-shipped piece that needs the artist's signature. "I know it looks like I'm doing ten things simultaneously," Chihuly mutters somewhat defensively, "but actually I never do more than one thing at a time. I'm just good at shifting my focus quickly." With that, he picks up a mechanical engraving pencil, scrawls his John Henry on the proffered artwork, then scrutinizes the famous signature for a meditative beat before returning his attention to the steamy, clamorous act of creation now building toward a climax a few feet away.

At the workbench, Rich Royal is brandishing a propane torch, applying finishing touches to the work, which has been transferred from the blowpipe to an equally long steel rod called a punty. The air is thick with tension; to lose the piece now would be crushing. Somebody yells, "OK, let's do it!" and a worker named Brian Brenno hurries into a silvery fireproof suit, a matching plastic-faced hood and heavily insulated leather mittens. Walking up to the roaring maw of the glory hole, he shoves his gloved hands into the fire to scorch away all traces of moisture. Royal hefts the punty

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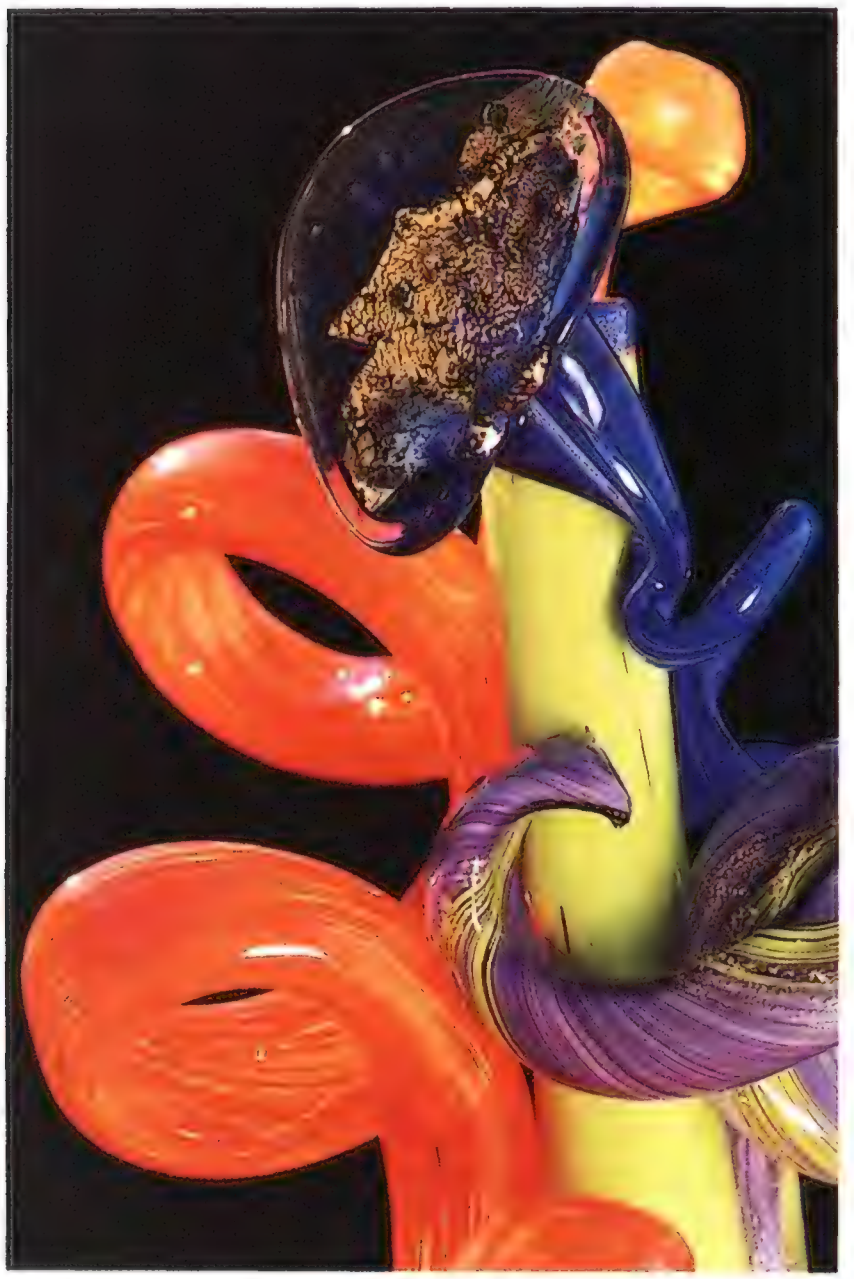
rod from the bench and rests the big, disturbingly fragile creation on a chest-high brace. Brenno, wearing an anxious expression, positions himself under it, hands raised, while Royal uses a pair of oversize metal forceps to score the base of the piece where it's joined to the punty. Royal taps the rod lightly once, twice, three times, and the 40-pound sculpture breaks free from the steel and drops into Brenno's waiting arms.

Grimacing from the heat and weight of the glass, Brenno wrestles the unwieldy object into a computer-controlled annealing oven. There, over a period of 36 hours, the temperature of the glass will gradually be brought down from 2,000 degrees to room temperature in order to reduce the likelihood that it will shatter as it cools. As the piece is laid safely inside and the oven door is shut, loud applause and cries of "Bravo!" erupt spontaneously from the 30-odd spectators who have gathered to witness the event. The tired crew then heads upstairs for a lunch of pasta washed down with shots of *caffe correcto*—high-octane espresso "corrected" with Sambuca, a potent licorice-flavored liqueur—to fortify themselves for the afternoon blow, when the whole demanding process begins again.



Detail of a Venetian: each coil and leaf is added individually; torches and glory hole make pieces fuse.

Thirty years ago it was all but impossible to find a serious artist or sculptor who worked in blown glass. Glassblowing was an industrialized craft; the medium had become the exclusive province of immense, highly mechanized factories dedicated to the mass production of utilitarian objects like kitchenware, wineglasses and laboratory flasks. There was a widely held belief in both art and industrial circles that high-quality glass simply could not be melted and blown without resorting to huge, superheated blast furnaces manned by a small army of technicians in a factory environment—a setting not overly conducive to spontaneous, unfettered artistic expression.

Enter Harvey Littleton, who in 1962 sparked a renaissance in art glass christened the "studio glass movement." A professor of ceramics at the University of Wisconsin, Littleton had grown up in the glass-making community of Corning, New York (his father was the director of research at the Corning Glass Works), and had long nurtured a stubborn conviction that blown glass held great potential as a medium for fine art. To demonstrate that potential, in March 1962, Littleton convened a glassblowing workshop in Ohio on the grounds of the Toledo Museum of Art.

Unfortunately, nobody at the workshop really knew what they were doing. The first batch of glass they cooked up wouldn't melt into a workable consistency, and the stoneware container in which it was being heated cracked in two. The prospects looked bleak until a friend of Littleton's named Dominick Labino came to the rescue. Labino, a brilliant industrial glass researcher whose glass-fiber developments would one day be used in the tiles on the exterior of the space shuttle, suggested changes to Littleton's furnace and donated a supply of "No. 475" marbles, a special glass he'd formulated that had an unusually low melting temperature. The marbles melted easily in the refurbished furnace and turned out to have a perfect consistency for glassblowing.

In the beginning, pitiful, lumpy shapes

Thanks to Labino, the Toledo workshop was a success, "probably as significant a moment in the history of glass as the time when glass was first blown," according to the art writer Paul Hollister. The fruits of that initial workshop were predictably crude and were described by various critics as "pitiful," "lumpy globby shapes," "heavy, thick vessels" and "numerous variations on the paperweight"—but Littleton had shown that glass could indeed be blown by independent artists working in small studios.

A series of Chihuly's Persian works is exhibited at Chancellor Park in La Jolla, California, in 1988. A source for these pieces was a painting he saw in Venice, *Saint George and the Dragon* by Carpaccio.

Giddy with excitement over the vast and unexploited creative terrain that suddenly beckoned as a consequence, that fall Littleton initiated a pilot program in glassblowing at the University of Wisconsin. By 1965, freshly minted alumni of that program had established similar courses of study at San Jose State University, the University of California at Berkeley, the University of Iowa, the Rhode Island School of Design (RISD) and the Haystack Mountain School of Crafts on Deer Isle, Maine.

Twenty-five-year-old Dale Chihuly, a butcher's son from Tacoma, Washington, appeared on Littleton's Wisconsin doorstep in 1966. A year earlier, Chihuly had graduated from the University of Washington where he had experimented with weaving glass, and had gone to work as an interior designer for the largest architectural firm in Seattle. The Chihuly temperament, however, was ill-suited to being a small cog in a large corporate machine, and he already knew that he wanted to study glass. So he quit the firm, spent six months baiting hooks in the stern of an Alaska salmon troller, then used the stake he'd earned at sea to enroll in Littleton's postgraduate glass program. Chihuly realized that he'd found his calling, and proceeded to rearrange the embryonic landscape of glassblowing.

Chihuly was good, but nobody was interested in purchasing his art at the time, nor would they be for another nine or ten years. After obtaining his MS degree at Wisconsin, he went for an MFA at RISD, subsisting on a series of teaching assignments and foundation grants, including a Fulbright Fellowship that sent him to Italy in 1968, where he talked his way into an apprenticeship at the centuries-old Venini Glass Factory on the island of Murano in Venice, the first time an American had been granted such access. Following his Italian sojourn, Chihuly spent the winter months as the head of the glass program at RISD, and his summers teaching at the Haystack Mountain School in Maine.

Haystack was a spirited, free-thinking community where artisans from many different disciplines worked together against a backdrop of spectacular natural beauty. Chihuly loved the heady atmosphere, the constant stimulation, the creative sparks that flew from the convergence of so much talent in a single place. He began to hatch a scheme to found a similar school devoted exclusively to glass.

Armed with a $2,000 grant from the Union of Independent Colleges of Art, in the summer of 1971 he drove out to his childhood stamping grounds in Washington State to scout out a site. A friend introduced him to a timber baron named John Hauberg and his wife, Anne Gould Hauberg, who were looking for a way to contribute to the arts in the Northwest. Chihuly became enamored of their misty hilltop, 50 miles north of Seattle, with an expansive view of Puget Sound, the San Juan Islands and the craggy summits of the Olympic Mountains. It took little time for the Haubergs to be convinced that a glass art colony and

In early cylinder from the '70s, Chihuly explored ways of drawing by fusing bits of glass to molten surface.

their land were a perfect match and, later, to provide major financial support as well. It was decided to name the school-to-be for Pilchuck Creek, which crosses the property. A few days after the Haubergs approved the location, the charter class of 16 students arrived. They were informed that their first assignment was to build a hot shop. At the time, Pilchuck was nothing more than a clearing in the woods and a fire in Chihuly's belly: there were no buildings, no electricity, no facilities of any kind. "Many of the students wondered what they'd gotten themselves into," Chihuly confesses with a grin, "but we all pulled together and worked 20 hours a day. We built a nice little furnace under a canvas tarp hung from poles, sort of like a circus tent. Fourteen days after we started construction, we lit the shop and blew glass."

For the first two summers, Pilchuck was as much an Aquarian-age experiment in communal living as an art school. Students set up house in the forest under primitive—if imaginatively designed—shelters and cooked over open fires. According to Kate Elliott, who first attended Pilchuck in 1972 and has worked there as an administrator, "When I arrived I had no idea how to build any kind of shelter, and it rained the entire summer. Basically, I lived under a plastic bag. There were huge, disgusting slugs everywhere; we used to hold slug races." By all accounts it was an amazing experience, nonetheless. There was a tremendous esprit de corps, a sense that one was part of something momentous. Romances blossomed, wine flowed freely, people talked art and blew glass all day and all night.

Two decades later, Pilchuck has grown into a bona fide institution. The social life is somewhat less saturnalian, the stands of fir are noticeably taller, the flimsy shacks and tepees of yore have been replaced by striking clusters of glass-and-cedar buildings. Each summer 250 students currently attend the school in five sessions of 50 students each, and the faculty is drawn from the biggest names in glass worldwide. Indeed, Pilchuck has become the hub of the vast and continually expanding art-glass universe. With some 40 glass studios, the Puget Sound area boasts the greatest concentration of glassblowers this side of Murano.

As Pilchuck has matured, so have the artists who cut their teeth at the school. A number of them have emerged from Chihuly's shadow to share the limelight, among them Richard Royal, Ginny Ruffner, Curtiss Brock, Ann Gardner, Paul Marioni, Flora Mace and Joey Kirkpatrick, Benjamin Moore and, most notably, a sinewy 33-year-old glassblower named William Morris, who landed a job at Pilchuck as a truck driver in 1978 and is presently pegged by many as Chihuly's heir apparent. Now that there is money to be made in glass, the naiveté and youthful exuberance of Pilchuck's early years have given way to increasingly commercial concerns. The Seattle art-glass community remains remarkably close-knit, but according to Elliott, "Things have definitely changed. The scene is getting too big to have everyone over for dinner anymore. You still see a lot of cooperation and mutual support—but only up to a point. Now that everybody's competing for a limited number of dollars, jealousies are starting to flare up. I think it's going to get even worse if the recession in the art market deepens."

But so far, demand for Chihuly's work continues to grow. Over the years, his creations have undergone several significant transformations of style. The Navajo Blanket Cylinders evolved into the more sophisticated Pilchuck Baskets, which were supplanted by the hugely popular Sea Forms—graceful, organic shapes in translucent hues, reminiscent of delicate scallop shells and rippling jellyfish—and then the fluid, garishly colored Macchias and Persians. Then came Chihuly's boldest series, the Venetians and the Putti: loud, shockingly voluptuous, completely over-the-top vases and jars adorned with kitschy gold cherubs and all manner of exotic glass flora. He is currently working on the Niijima Floats, huge inflated balls of glass.

Chihuly's new works are "challenging": even their fans admit that they have "a certain vulgarity that can put you off initially." Many glass collectors, in fact, privately wish he would go on making Sea Forms forever. But for his part, Chihuly really only cares about pushing the boundaries of glassblowing. And where that's going to take him nobody knows. Not even Chihuly.

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By Beverly Beyette

A country 'town' that celebrates the way we were

By the time Lowell Davis decided that he wanted to end up where he started out, his Missouri hometown had vanished. So he built a new one

Lowell Davis of Jasper County, Missouri, is a pipe-smoking artist, farmer, preservationist and bona fide American original who's doing his level best to dispel the notion that you can't go home again. He wears faded denim clothes and a neckerchief. He drives a 1934 Plymouth sedan. He lives in a house that incorporates a 149-year-old log cabin, and for the past several years he has devoted himself single-mindedly to re-creating the town where he was born and raised.

That would be the community of Red Oak in the southwestern corner of the "Show Me" state, which today is little more than a shadow of its former self. Red Oak II, the replica Davis is assembling on his 60-acre spread some 20 miles down the road, is an unabashedly sentimental collection of refurbished houses and other buildings that constitute a museum of rural life in the first third of this century. Davis moved some of the buildings, including the general store and the blacksmith's shop, from the original Red Oak. The schoolmarm's house, which is operated as a bed-and-breakfast, once belonged to his great-grandmother. He discovered most of the other structures nearby.

Davis' most sensational acquisition is the Belle Starr complex, which consists of the house in which the notorious queen of the outlaws was born, in 1848, and a replica of the house she lived in when she was shot, in 1889. Starr spent part of her childhood several miles away in Carthage, Missouri.

Unlike such elaborate reconstructions as Old Sturbridge Village in Massachusetts and Colonial Williamsburg in Virginia, Red Oak II is small, personal and down-to-earth. It's situated on an inconspicuous country road that features a series of Burma Shave signs. At first glance it looks like an Old West film set. Although it is open to the public, Davis didn't make it for tourists. He made it for his five children and three grandchildren. "I wanted to create memories for them," he says.

The memories are mostly his own. Davis does not just *feel* nostalgia, he is driven by it. His father was a farmer in Red Oak who lost everything in the Depression. If those were hard times, Davis says they were also good times. Most families had a garden and a Jersey cow, and Mom sewed her own clothes. Neighbors helped and cared about one another. When there was a funeral or an anniversary, everyone showed up. Davis remembers learning how to whittle on the front porch of the general store, which was owned by his uncle and operated for a time by his father.

Like many other small towns all over the country, Red Oak hit the skids during and after World War II, when people started moving away in search of better jobs and the "good life." Davis himself joined the Air Force, then went to Kansas State University and ended

Hound named Flash bides his time while Davis (left) plays checkers in original Red Oak general store.

A 1934 Plymouth sedan looks just right parked outside the store, which was moved to Red Oak II by truck.

up working as an art director for an advertising agency in Dallas. "I spent 13 years there staring out the window and hoping I could get back home someday." He'd seen enough of the good life.

Combining his interest in farming with his artistic talent and his penchant for whittling, Davis came up with an idea that would eventually make his hometown dream come true. He began producing a series of limited-edition porcelain figurines molded from his sculptures of barnyard animals. The Lowell Davis Farm Club now enrolls more than 10,000 members who pay as much as $750 apiece for his winsome renderings of sheep, geese, horses, cows and goats. The success of that enterprise has enabled Davis and his wife Charlotte (he calls her Charlie) to invest more than $1 million in Red Oak II.

Davis inspires the full-time crew of carpenters and other craftsmen who do his restoration work to regard each of the 13 buildings in his collection as a work of art. For their dedication, they are rewarded with more than a paycheck: they get to sign their work. The ground rules laid down by Davis include no plywood, no Masonite and no plastic.

Red Oak II is an oasis for Davis' children and grandchildren, all of whom live there or close by. One of his daughters runs the general store, and every day the youngsters stop by to purchase some small treat. Davis talks about wanting them to have an understanding of a time when schools raised money by having young women make and decorate box suppers that young men would bid on. He believes his offspring have a lot more fun than do the children of the suburbs who, he says, "are bored silly."

Lowell Davis is that rarity of modern times, a man who has had the good fortune to come full circle in life. When his father was running the store in Red Oak, the Davis family lived behind it. Nowadays, the Davis family members gather around the potbellied stove on chilly evenings in that same store, shoot a little pool and eat supper together. The patriarch recently showed a visitor the porch where he learned to whittle. "When I get old," he drawled, "I'm gonna sit out here in my rocker and sell people Eskimo Pies."

Ms. Beyette got acquainted with Davis while doing a story on him for her employer, the Los Angeles Times.

Photographs by John Livzey

In overview, schoolmarm's house is behind fence at near left, next to school. Store is on the other side of school. Church is at far end. Belle Starr complex is between church and smithy's shop across from school.

The schoolmarm's house, located next door to the one-room school (above), was the real-life residence of Davis' great-grandmother. Church (left) is rented out for weddings, and services are held in it every Sunday evening. Built around 1907, it was transferred from another site, six miles away.

Charlotte Davis furnished bedroom of schoolmarm's house with antiques. It's now run as bed-and-breakfast.

Bread blurb on feed store's screen door is a sign of the times. Davis recalls seeing such ads as a youngster.

Old-fashioned pencil sharpener in schoolhouse is mounted right where it should be: on the windowsill.

Bottles line store window. Davis likes collecting things he can use to make "vignettes pleasing to the eye."

Restored classroom lacks only students. In days gone by, lunches brought from home were warmed on stove.

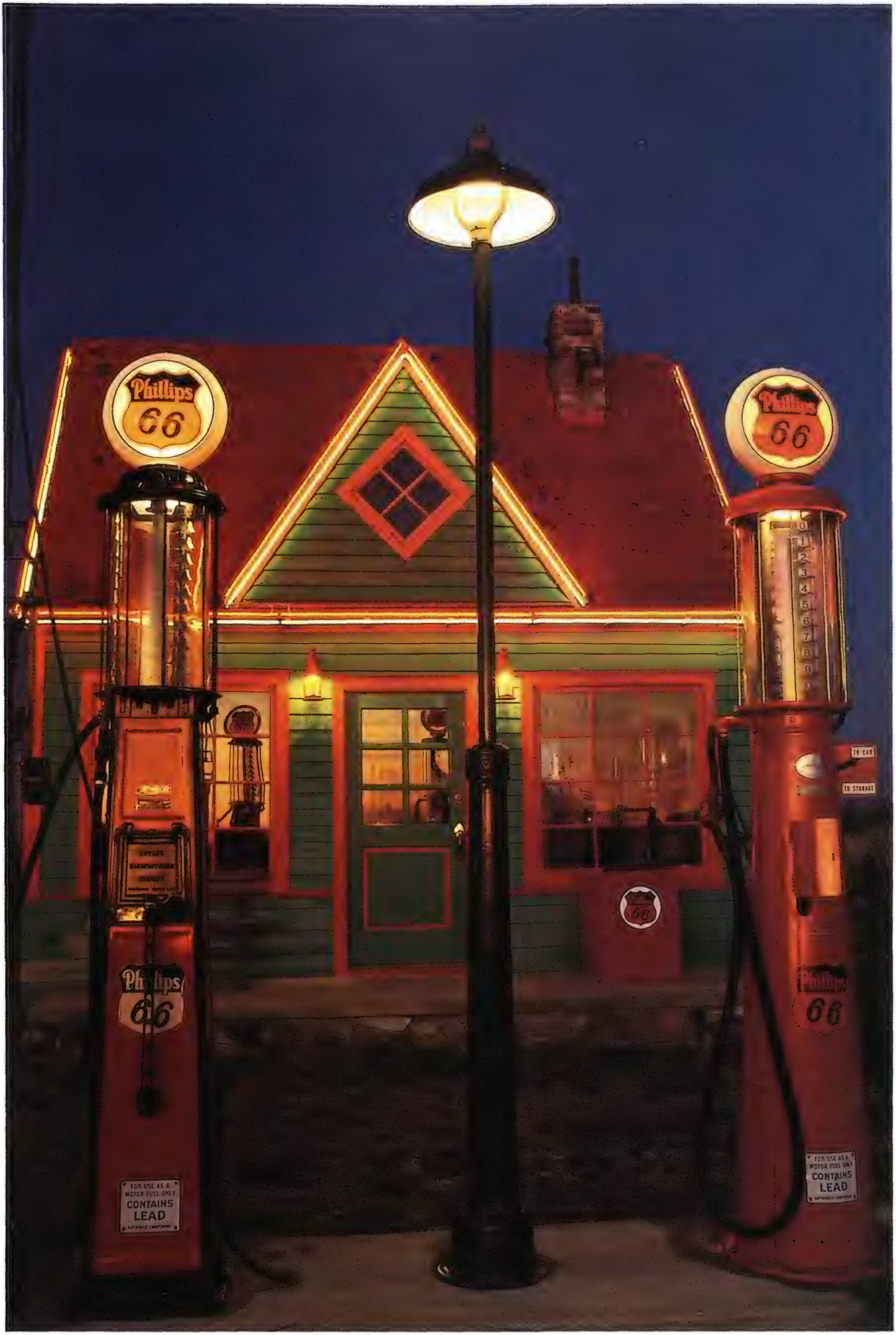
Dining room of schoolmarm's house adjoins kitchen (through double doors, right) and the parlor (center).

Flanking the fireplace in reproduction of the cabin that was Belle Starr's home at the time of her death are portraits of outlaws "Cole" Younger (right) and Frank James. Starr spent part of youth in nearby Carthage.

In his studio, a remodeled chicken house, Davis works on a painting. His favorite animal? It's the chicken.

Davis inspects new addition to his town, a fancy privy that will be fixed up for use as a public restroom.

When it's all lit up, the 1920s filling station at Red Oak II looks more like an old-timey gingerbread house.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By John Seidensticker with Susan Lumpkin

Mountain lions don't stalk people. True or false?

False. In the old West, the big cats were nearly wiped out, but in the rapidly changing new West, they are back—and going on the attack

I was sitting in the stuffy conference room of a motel in Denver, Colorado, not long ago, waiting for the next speaker at a symposium on "interactions" between mountain lions and people, when suddenly I had a vivid recollection of my own close encounter with a big cat almost exactly 20 years earlier. It happened while I was picking my way through a stand of lodgepole pines in the mountains of central Idaho. I was tracking a radio-collared female dubbed C-3. Her transmitter had been signaling from a nearby alder thicket for several days with no apparent movement, and I wanted to find out what was going on. When my dog gave an excited bark, I walked over, and sure enough, there was C-3 looking right at me around a skinny lodgepole about 60 feet away.

The cat hissed and laid her ears back. Then, holding her head low, she started moving toward me. Mountain lions don't stalk people—certainly not people with dogs. I knew that. My dog barked and I yelled, but C-3 kept coming.

She was now 30 feet away. An image of the pistol I usually carried flashed through my mind; for some reason, that morning I'd left it at the cabin. I started to shed my backpack, thinking I could use it as a shield, when my hand brushed against a thick limb sticking up beside me. Glancing down, I broke it off. In that second's loss of eye contact, C-3 moved quickly. She was just 20 feet away. Taking shaky aim, I threw my stick and hit her on the shoulder. After a moment's hesitation, she jumped and disappeared in the alders.

A lion on the prowl is a scary sight. As the absence of scars and ripped ears attests, this animal is a captive.

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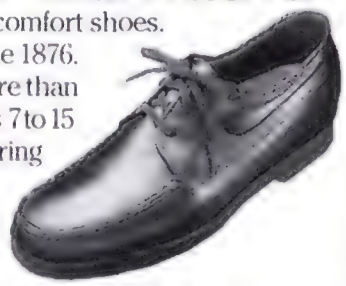

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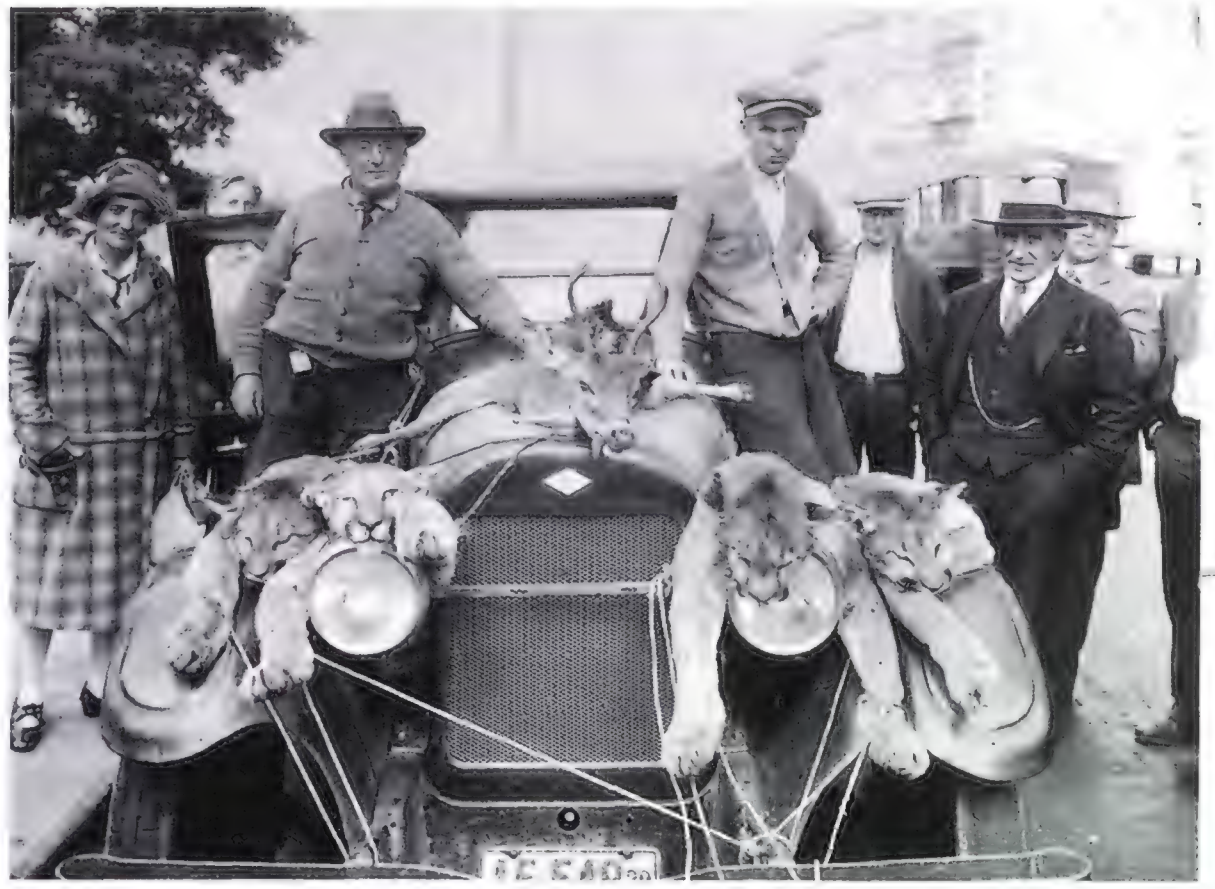

Bounty hunters in Victoria, British Columbia, display lions they shot in the wooded hills of Vancouver Island, circa 1929.

I was shocked. I'd been radio tracking mountain lions for two years, and had been very close to them many times without feeling any threat. But there was absolutely no question C-3 had been intent on attacking me. I liked that cat. I also had an enormous investment in her. As the most important female in my doctoral research, she was a key to my future. But if I'd had my pistol, I would have used it.

From then on I was a lot more careful. I continued to assume, however, that encounters like mine were unusual—rare blips on a screen of mainly peaceful coexistence. Now here I was at a meeting that had been called to ponder a serious new problem—an alarming number of mountain lion attacks on people. As if to drive the point home, a cat had killed a jogger near a high school 30 miles west of Denver only three months earlier.

It was a tragic event not only for the jogger but, potentially, for mountain lions as well. The negative publicity resulting from an incident like that could set back years of effort to save the animals.

During more than three centuries of relentless pressure, settlers and others who were determined to wipe out mountain lions almost succeeded. The cats once occupied a range that spanned the continent. By the time I began studying them, they were few and far between, living in remote pockets in the West's remaining wilderness areas. Since then, conservationists have worked hard to change the way the creatures are perceived and managed.

Throughout the West, mountain lions have been removed from the "varmint" lists that encouraged people to shoot them on sight. Instead, they are now classified as game animals. This may not sound like much, but it is a tremendous step forward because the hunting of game animals is regulated to ensure that the "harvest" is not excessive. Californians went even further in 1989 when they passed a law that gives the cats full protection from hunting and mandates special funding to protect their habitat.

These measures seem to have worked. While numbers are difficult

to come by, most observers agree that there are now more mountain lions in the West than there were 20 or even 50 years ago. One indication of this is the incidence of attacks on humans. Four Americans have been killed during the past 21 years, and 14 have been injured. The situation is even worse in British Columbia. There, on Vancouver Island and in the general vicinity of the city of Vancouver, 33 people have been killed or injured since 1916.

The sheer effrontery of some of these attacks is astonishing. Near a housing development east of Vancouver last year, a lion calmly walked up to a group of preschoolers having lunch on a riverbank. When the teacher heard a girl say "Stop licking his face," she turned and was horrified to discover the cat licking the face of a 2-year-old boy who was sprawled out on the sand. She tried pulling the animal away and it lashed out. The teacher, the boy and the girl were badly mauled.

Intrigued by such stories, a hundred or so people showed up at the Denver symposium—wildlife biologists and managers, animal-rights activists, conservationists, mountain lion groupies and reporters. We gathered to compare notes and talk, hoping that some suggestions for a solution would be forthcoming. No one, including me, had any idea why there were so many "problem" cats.

Since finishing my PhD on the social organization of mountain lions, I'd been pretty much out of the picture. I went off to study tigers, leopards and other large mammals in Nepal. Then I worked in Bangladesh, Indonesia and Sri Lanka, helping to plan national parks in ways that respect the needs of both cats and people.

Historically, man-eaters have been a rare yet fairly regular phenomenon throughout South and Southeast Asia. Countries such as India have made important strides in tiger and lion conservation during the past two decades. One result has been a significant increase in the populations of these animals. Another result has been an increase in the number of attacks on people. This gives conservationists fits. Even a villager who is inclined to support programs that benefit big cats is going to balk if one of them eats his wife.

I returned to this country in 1980 to take a job at the Smithsonian's National Zoological Park in Washington, D.C. It wasn't long before friends and relatives began sending me news clips on the cat attacks out West. By the time I heard about the mountain lion symposium, I was ready to take a new look at my old specialty. I was pretty sure what the sense of the meeting would be. After all, I grew up in Montana and I know that what Westerners do with problem animals is shoot them—or at least that's what they used to do. But it quickly became clear to me that the people who had come to the symposium really cared about mountain lions.

All I could add to the proceedings was the perspective of my own understanding of the predatory behavior of the big cats of Asia. We know that lions, tigers and leopards turn to people when their natural prey—large, hoofed mammals—are in short supply. Tigers and lions are more apt to become man-killers than leopards. Charles McDougal, a longtime student of man-eaters, suggests this is because the smaller leopard is better able than lions or tigers to make it on small prey. Leopards will even take a village dog, a morsel the larger cats would disdain.

Like other big cats, mountain lions specialize in killing large mammals with hooves, primarily deer and elk. C-3 once (that I know of) killed a bull elk, an animal about eight times her own size. Like the leopard, however, the mountain lion (aka "cougar" or "painter," in addition to "puma,"

John Seidensticker is the curator of mammals at the National Zoo. Susan Lumpkin edits ZooGoer, *the magazine of the Friends of the National Zoo.*

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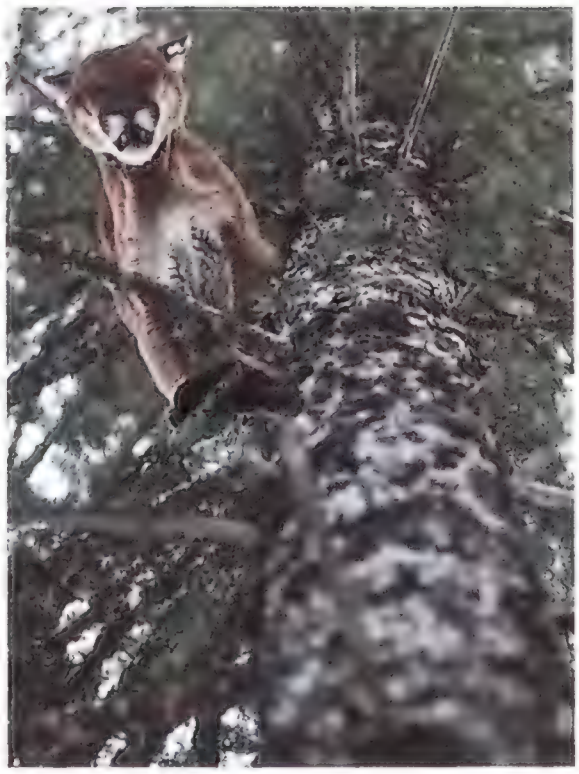
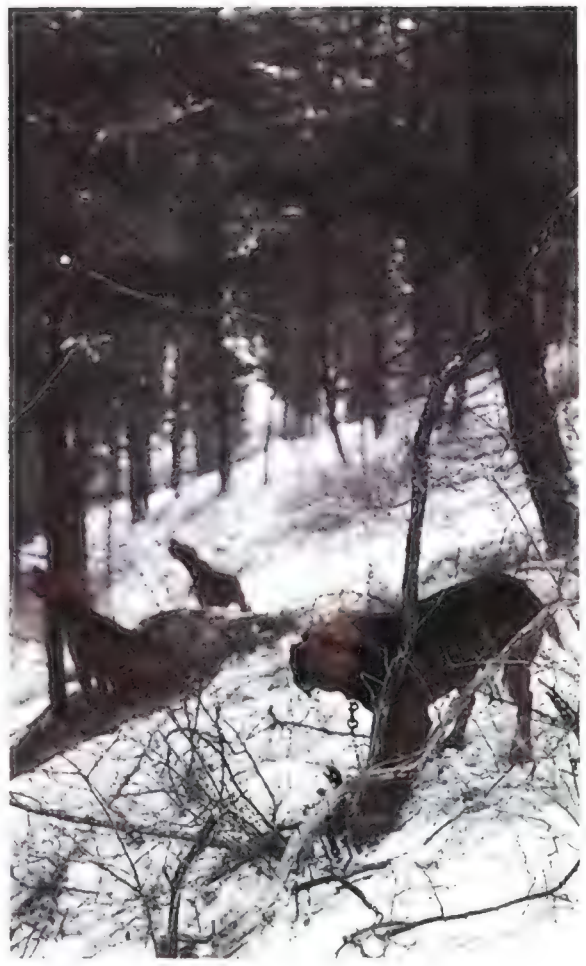


Hissing cat was treed by author, hounds, some years ago in mountains of Idaho.



Excited dogs kept lion in a tree until it could be tranquilized and taken down.

"panther," "deer tiger" and "catamount") is also able to live on smaller prey. The animals I tracked in Idaho spent much of the summer hunting ground squirrels.

It's true that mountain lions kill domestic livestock—cattle, horses and sheep. The late Edward Abbey put it this way: "The mountain lion eats sheep. Any animal that eats sheep can't be all bad." This sentiment is not shared by the ranchers who lobbied so long and hard over the years to keep mountain lions on the varmint lists. I admire Abbey, one of the great nature writers and conservationists of this century, but I do have some sympathy for the ranchers' point of view, too. As teenagers, my brother and I were each given two cows in exchange for working our family's ranch. They, or more precisely, their calves, were to be our nest eggs for college. I lost one of my cows to unknown causes and therefore started out in life with only half the "fortune" that my brother had.

One of the surprising things we learned at the conference was that mountain lion attacks on humans are not as rare as most people think. Paul Beier, a Berkeley-based wildlife scientist, told us about authenticated records of 53 mountain lion attacks resulting in 11 deaths during the past 100 years. That's far more than I would have guessed.

The people attending the symposium had many questions about this. Why were mountain lions seemingly more likely to attack today than in the past? Were there certain geographical "hot spots" where attacks were more prevalent? How do people living in the communities where there have been incidents feel about lions? What should a person who is approached by a cat do and not do? What do people who have survived attacks think could have been done to prevent them?

I came to the conference with a few working hypotheses. It seemed reasonable to assume that some human-attacking mountain lions, past and present, were rabid animals, or were on the edge of starvation because of an injury or some other malady, and

turned to people as easy prey. Moving beyond that, I considered whether there were any changes in the mountain lion's environment. There were, some beginning 10,000 years ago, others as recently as 20. I then recalled a question I had asked my doctoral adviser, Maurice Hornocker, when we were using hounds to trail, run and tree mountain lions to capture them and attach radio collars. Hounds are all bark, teeth and fury when they get a fresh mountain lion scent. I could understand a cat running from a pack of them. But sometimes we used only one and got the same results. Why would a powerful predator like the mountain lion be intimidated by a single dog? "At some time in the lions' history, something barked and chased them, something that could cause them real harm," Hornocker replied.

The lion's geographic range stretches from the southern Yukon in the north to the Strait of Magellan in the south, more than 110 degrees of latitude. In the neotropics, the lion shares territory with the larger jaguar. In more than half of its range, the mountain lion is the largest cat, but this is a relatively recent development.

Some 10,000 years ago, it was a small member of a rather impressive assemblage of big carnivores. This bestiary included today's coyote and wolf; the larger, now-extinct dire wolf; and the wild dog *Cuon*, whose closest living relatives hunt in large packs in Asia and have been reported to drive even tigers off kills. Besides black bears and grizzly bears, mountain lions lived among the extinct short-faced bears, the most powerful predators of the American Pleistocene. Also now extinct but fairly common during the Pleistocene were large scimitar cats, and Smilodon, the New World saber-toothed cat, both about the size of today's African lion, as well as American lions, weighing half again as much; and American cheetahs that resembled modern cheetahs in size and probably in hunting style.

In Asia, I learned how leopards avoid tigers, which are about four times their size. A tiger will kill a leopard if it can catch it. Leopards clearly are the social subordinates of tigers. That being the case, leopards don't use their long-distance "sawing" call very much when they are around tigers. They shun the trails and forest roads that tigers travel. They take different creek and river crossings, and hunt at different times of the day. Analogously, the circumspect demeanor of mountain lions around dogs today may be a survival tactic that had its genesis in the lions' role as bit players in the Pleistocene—social subordinates of many of the truly ferocious big carnivores then occupying center stage. And until quite recently, mountain lions still did have to contend with grizzly bears and gray wolves, both of which were likely to dominate them, just as lions dominate coyotes and bobcats now.

The ancestry of the mountain lion remains largely unknown. Steve O'Brien and his colleagues at the National Cancer Institute, using the tools of molecular genetics, discovered that both mountain lions and cheetahs are more closely related to lions and tigers than to the smaller cats with which they have long been classified. There is a possible connection with the now-extinct American cheetah; the behavior of the mountain lion is more cheetahlike than leopardlike, or at least it used to be.

The boldness displayed by mountain lions in attacking or killing people just doesn't square with the shy, retiring behavior familiar to those of us who have studied these animals. But almost all of us captured our cats with the aid of hounds, and we did so on a regular basis. I think the hound or pack of hounds can play the part of a dominant predator in the mountain lion's life. We literally conditioned the animals we studied to be reclusive. Could it be, therefore, that cats are becoming emboldened in areas where they have had no recent experience with a dominant predator?

A long time ago I asked my grandfather, a tough cattle rancher and a skilled observer of wildlife, what he thought had happened to the cats. Why, I wondered, did no mountain lions live in the protection of Yellowstone National Park, where lots of prey in the form of elk were available? He told me that when he was a boy at the turn of the century, not only were there no mountain lions or grizzlies or wolves anywhere in southwest Montana, there was no game of *any* kind. The gold miners who came in the 1860s, and the homesteaders in the 1880s, pretty much cleaned it all out. When deer and elk herds in the West did start to increase in numbers, their predators—coyotes, wolves and mountain lions—were excluded by extensive poisoning campaigns designed to save both the livestock and the wild game that human hunters wanted. During the past 20 years, thanks to reduction in poisoning, increased protection and an abundance of prey, lions have moved back into their former range, including Yellowstone. With grizzlies and wolves essentially gone, the cats are now the biggest predator—the dominant predator.

Hiking into this modern mountain lion's world comes the nouveau Westerner, with a copy of *Outside* magazine in his pocket. Robert Redford and Ted Turner and other eco-celebrities can be found relaxing on the very same spreads once worked by hard-bitten ranchers, and "recreationists" are venturing into remote wilderness areas by the tens of thousands all year round. Housing developments are springing up on rangelands and nibbling at the very edges of the wilds—developments where deer graze in the backyards and no one shoots them. No one shoots mountain lions much, either, in many parts of the new West. On this shifting stage, encounters between people and cats are inevitable.

It's one thing to suggest that the mountain lion is no longer conditioned to fear Man. It's another thing to conjecture about why it goes on the attack. What, for example, was C-3's motive in approaching me? I learned later that she had recently given birth to cubs, but I don't know for sure if her cubs were hidden in that alder thicket. Nor do I know if she had a kill in there; I couldn't find any remains when I searched later.

I do know now that C-3 was not displaying what animal behaviorists call a normal predatory sequence when she first started to approach. First she bared her teeth, hissed and laid her ears back at the sight of me; that was defensive behavior. George Schaller noted that when African lions pursue their normal prey, their faces are alert and their teeth are not bared. C-3 was threatening me at first, rather than truly stalking me as she would a deer, because I wasn't pre-

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senting the normal stimulus of a potential prey animal. The dog cowering at my feet didn't clarify the situation.

A human standing up is just not the right shape for a cat's prey. An erect person's head and neck are in the wrong place, and most adults are taller than even the largest of the lion's prey species. The location of the neck is most important, for that is where the cat delivers its killing bite. In Nepal I watched tigers and leopards dispatch cattle and domestic water buffalo. I also found kills very near to where herders were standing. It always impressed me that those aggressive cats did not attack and kill those people when they had the opportunity to do so.

I once presented a paper at a meeting of anthropologists on the subject of "primates as prey." I ended by noting that when a sloth bear, which lives in the same habitat as leopards and tigers in India, is in a defensive mode, it stands up. So do grizzly bears when they encounter big cats. I made some half-joking remarks about why early hominids took to standing up—perhaps this worked to scare off predators. On the other hand, a person sitting, squatting or bending over looks a lot like a four-legged prey animal.

Tigers sometimes kill Asian rubber tappers who go out to work in the darkness of early morning and bend down to cut into trees to start the latex flowing. They also kill grass cutters who are bending over, and people who go out at night and squat to relieve themselves. Some of the people killed every year by tigers in the Sundarbans, a great mangrove forest at the mouth of the Ganges in India and Bangladesh, are honey collectors. They travel through the forest at low tide, frequently alone or well away from other collectors, and must bend down in order to get under the branches of the mangroves.

All of this suggests that you should be very careful where you bend or squat if there's a chance a big cat might be looking over your shoulder. Could it be that the Colorado jogger attracted the mountain lion's attention as he ran along, then stopped and crouched down on one knee to tie a loose shoelace?

I have never seen a mountain lion make a kill; very few people have. I have pieced together the sequence from tracks in the snow, but that is not the same as actually seeing it. I know that when a water buffalo senses and then spots a stalking tiger, it sometimes turns to face it. The tiger only slowly approaches a facing buffalo, and even displays for the buffalo what the renowned student of cat behavior Paul Leyhausen has termed a "threat-to-bite posture." It is hard for a tiger, especially an inexperienced one, to figure out how to attack an animal that is facing it. But if the

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buffalo turns to run, it's all over; the tiger pulls it down, grabs its neck and delivers the killing bite. The hunting tiger's entire sequence of movements is keyed to the movement of large prey, and the sequence is set in motion when the prey turns to run.

It seems reasonable to infer that this is about the way it works with mountain lions. When I looked away from C-3 for the briefest second, she rapidly closed the distance between us, slowing up only when I looked back at her. If I had turned to run, I might not be writing this story. So standing up and putting on a good face may deter big cat attacks. Indian wildlife authorities are providing people who work in the Sundarbans with face masks to wear on the backs of their heads (SMITHSONIAN, November 1987). So far, none of these two-faced workers has been attacked by tigers.

We were told at the symposium that many of the mountain lion attacks here involved children. I wasn't surprised by this. In my previous position as curator in charge of big cats at the National Zoo, I watched many of our animals stalk the children who passed by them. Whenever I take people behind the scenes, I ask them to carry their little children. Otherwise the cats, which are well socialized to adults, get very excited and sometimes charge the bars to go for the youngsters. I believe this is simply because kids are small and, as every parent knows, usually in motion.

Captive-bred female bares her teeth, lays ears back, as if to say "Back off."

Mountain lions have gone after people in strikingly different environments. There have been attacks in great natural areas—Texas' Big Bend National Park, for example, and Montana's Glacier National Park. A little boy was killed on an American Indian reservation in Montana. There have been incidents in cities and suburbs and in California's densely populated Orange County. Disparate though they may be, these locations all appear to have a couple of things in common. First, they contain significant populations of natural mountain lion prey (deer and smaller mammals), and second, the people living in these places are nonthreatening.

The hottest attack spot is around the city of Vancouver in British Columbia, and on Vancouver Island. At the symposium, Dennis Pemble, a British Columbia wildlife-control officer, told of his efforts to capture and move the mountain lions that roam the suburban neighborhoods of North and West Vancouver. These animals prey on the numerous deer that live there, as well as on raccoons and the occasional cat or dog. He recounted the story of one poor woman who watched as a mountain lion grabbed her dog and, after climbing a nearby tree, ate it. It was Pemble who told me about the cat that mauled the two preschoolers and their teacher.

I was also intrigued with his account of a grouse hunter who met a mountain lion walking down a logging road near Vancouver. The hunter and the cat watched each other for some time, and the animal showed no sign of backing off. Tired of waiting, the hunter was reaching down to pick up a stone to throw when he sensed some movement off to the side. A second cat was coming right at him. He shot it, then the first one as it, too, charged.

Photographer spotted a lion killing a deer near a road in western Montana.

When the hunter broke off eye contact and bent down, he had suddenly become prey.

Pemble described the excellent mountain lion habitat that exists just five miles from the center of Vancouver, a city of nearly a half-million people. North and West Vancouver are located on the north bank of Burrard Inlet and tucked under the Coast Mountains. This area and Vancouver Island are richly forested, and have always had good deer and mountain lion populations. Most of the cats Pemble has captured in Vancouver are young animals or adult males. I would expect that to be the case.

Breeding male mountain lions defend territories, while adult females live on overlapping home ranges. The size of territories and the degree of home-range overlap depend mainly on the availability of prey. When young mountain lions leave their natal areas to establish their own territories, there are only so many good places around. Those cats that can't find places, and adult males that have been driven out of theirs by young challengers, end up in the suburbs.

The thing that impresses me is not the number of attacks in the Vancouver area but how really *few* there have been, given the close proximity of mountain lions and people. Pemble, in fact, spends most of his time as a wildlife-control officer dealing not with mountain lions but with black bears. He says he gets 100 bear complaints for every one about lions.

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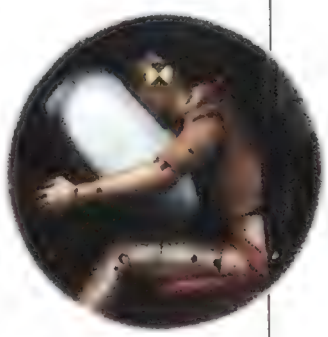

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In and near Boulder County, Colorado, researchers have accumulated nearly 400 reports of recent mountain lion sightings, 29 from inside the city of Boulder. But there has been only one attack on a human. The prey situation is interesting there. In the early 1900s, no deer or elk lived in Boulder County. Deer started coming back in the '20s, and today there are many within the city limits. The people who live in the city of Boulder have unwittingly created a mountain lion heaven—complete protection from hunting and lots of deer.

Mountain lions have also returned in number to Montana, which remains largely rural, and three recent attacks have been reported there: the 5-year-old boy who was killed on an Indian reservation in 1989; a 9-year-old boy who was injured in Glacier National Park in 1990; and game warden Mike Quinn, who was attacked that year near Bigfork in an incident very much like the one I experienced. Quinn, however, had his shotgun with him and used it to kill the cat.

The reaction of many Westerners to mountain lion attacks is surprisingly subdued. Take my father, a man who is anything but a nouveau Westerner. A retired physician now living in Dillon, Montana, he is the former owner of a cattle ranch and a hunter of statewide renown. He adamantly, loudly, opposes reintroducing wolves into Yellowstone National Park—we haven't so disagreed on anything since the Vietnam War. But he is unconcerned about the quiet return of the mountain lion to Yellowstone and to Montana, and shrugs off mountain lion attacks as unremarkable.

I spoke at some length during the Denver proceedings with Art Soukkala, a wildlife biologist with the Confederated Salish and Kootenai Tribes, on whose Montana land the boy was killed. How do the Salish and Kootenai people feel about mountain lions on their land? The cat that killed the boy was killed. Do the people want to eliminate mountain lions to reduce future risk? No, Soukkala told me. At a tribal meeting after the boy's death there was a proposal to allow open hunting of mountain lions. But the majority felt that one death did not justify an assault on the cats.

The Colorado citizens I met at the symposium said they didn't want to kill lions, either. What they wanted was information about how to reduce the risks of living with them. They suggested warning signs in parks, postings of recent sightings and rerouting jogging trails away from places where a mountain lion might hide. Just as people who live in big cities scan the newspapers for hints on avoiding and fending off muggers, Coloradans are looking for hints on avoiding and fending off mountain lions. The challenge for wildlife agencies, not only in Colorado but throughout the West, is to provide that kind of information.

This, it occurred to me on the flight back to Washington from Denver, is pretty strong stuff. That the mountain lion has achieved such a strong comeback is remarkable enough, but the public's tolerant attitude toward the animal is even more striking. A Hollywood screenwriter would be hard put to come up with a more improbable indicator of how much the West has changed. Think about it. An animal that only a generation ago was regarded as an enemy because it poached livestock is now perceived as an asset despite the fact that it has attacked and sometimes killed people.

For me, the turnabout is doubly ironic. While I was running around the world trying to convince people that big cats are worth saving, the very same lesson was taking firm root back home in my old stamping ground.

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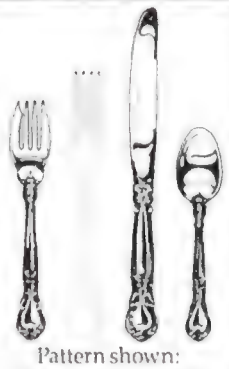
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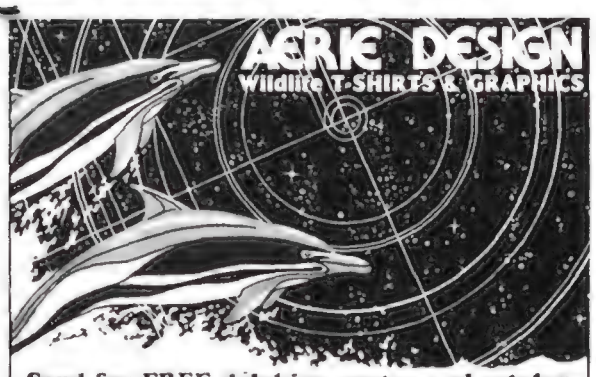

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Strange Bedfellows:
The First American Avant-Garde
Steven Watson
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In 1912 Ezra Pound wrote, "If it lie within your desire to promote the arts you must not only subsidize the man with work still in him, but you must gather such dynamic particles together, you must set them where they will interact, and stimulate each other." He might have been writing of the American avant-garde, the loose network of esthetic renegades who declared war on the moribund art establishment, seeking to liberate themselves and society.

Joining forces to subvert the academy, capitalism and Victorian morality, they created the forms and syntax of modernism—free verse and imagist poetry, Cubism and abstract art—and catalyzed similar developments in music, drama and fiction. In the process they reshaped 20th-century American culture.

With a quirky cast of characters ranging from émigré artist Marcel Duchamp to photographer Alfred Stieglitz, *Strange Bedfellows* chronicles the adventures and amours of the pioneers of American modernism.

This lively and comprehensive group portrait, covering the era bracketed by the Armory Show of 1913 and America's entry into World War I in 1917, weaves together the "cradles of modernism" in Paris, London, Florence, Chicago, Boston and New York, and the tangle of personal circles revolving around four charismatic leaders: Stieglitz, Duchamp, Gertrude Stein and Pound.

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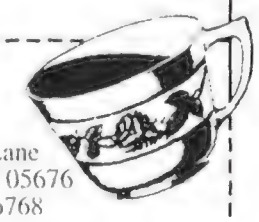
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are well known. Less familiar is Pound's role as impresario of the new poetry. Using his network of connections, he encouraged the little magazines to publish adventurous young writers such as T. S. Eliot and James Joyce. Pound's own imagist verses, stripped of rhetorical excess, laid the foundation for modern poetry; his dictum "Make It New" became a slogan of the avant-garde.

Duchamp played a pivotal part, starting when his *Nude Descending a Staircase* "became the public emblem for modern art." He arrived in New York in 1915; his "chiseled Norman features and penetrating blue eyes," Watson notes, "aroused both men and women," and he became the focus of the Arensberg and Stettheimer salons. Today, he is recognized as an original and gifted pioneer, a seminal figure strongly influencing succeeding generations of artists.

Watson appreciates that the circles around the major figures included not only artists, but also hosts and hostesses, collector-patrons (Katherine Dreier and John Quinn) and critics (McBride and Walter Pach), whose relationships were collegial, competitive and often romantic. These intimate, overlapping circles provided links to the European avant-garde, and became disseminators of the new art and literature in this country.

By the time of the 1913 Armory Show, bohemia had a home in Greenwich Village. Much of the book's action takes place there, at the Liberal Club, Polly's Restaurant and Mabel Dodge's salon (SMITHSONIAN, June 1991). When war broke out in Europe in 1914, *tout le monde* moved to New York, and with inventive artists like Duchamp and Francis Picabia leading the way, the arts came to speak with a French accent. Watson takes side trips to the "poetry wars" fought in Chicago and London, featuring Pound, Margaret Anderson and Harriet Monroe, and to Eugene O'Neill's tormented plays at the Provincetown Playhouse.

Watson, an independent scholar and practicing psychologist, curated the exemplary avant-garde exhibition presented earlier this year at the Smithsonian's National Portrait Gallery and now on display, in abbreviated form, at the Metropolitan Museum of Art in New York. He is at his best with the telling anecdote: before regulars at Stieglitz's 291 gallery went out to lunch, "the needier artists would camouflage their frayed coats by rubbing black ink and cigarette ashes into offending spots." Or

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with the titillating aside: how painter Arthur B. Davies maintained two wives and two families of children, unbeknownst to each other until after his death; and about patron Dreier's one-day marriage, to a bigamist.

Studies of the birth of American modernism have become something of a cottage industry of late, but *Strange Bedfellows* carves out its own niche. Rather than undertaking a full-blown analysis of what it all meant, Watson is content, as readers should be, with exploring the pecadilloes and creativity, the groupings and gropings, among the frisky lions of the new.

Diagrams of convoluted personal relationships, Greenwich Village maps, a glossary of Village slang, an annotated cast of characters and a comprehensive chronology amplify and elucidate the animated text. Exhaustively researched, copiously footnoted, lavishly illustrated and written with appropriate gusto, *Strange Bedfellows* is good reading and provides valuable insights for scholars. *Stephen May* writes from Washington, D.C. about art, culture and history.

Tula Hatti: The Last Great Elephant
Peter Byrne
Faber and Faber, $19.95/$12.95 paper

In 1967, in the extreme southwest corner of Nepal, a man known among his colleagues as a PWH, or Professional White Hunter, took a client on safari. The client shot and wounded a tiger, which escaped in thick grass. The following morning the PWH stalked it to a clearing and fired a single shot. He believed the animal was dead and walked up to it to make sure.

The tiger was dead, he wrote later. "But its eyes were not. They were wide open and they stared right at me, full of fire and life. There is gold in a tiger's eyes and the glowing, golden light that I now saw, enhanced as it was by the morning sun, seemed to burn from great depths. I felt, looking into those eyes, that I was looking into another world, a world mysterious and unreachable, untouchable, a world which held the beginnings of life itself. I also felt an accusation in that steady stare and felt it the more when, after a mere fifteen seconds, it slowly began to weaken. A gray cloud crept across the pupils and the light that blazed out of them began to darken. Then, quickly, almost as though I had been privy to some secret thing living in those extraordinary depths,

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the light faded and died. An opaque film clouded the irises and suddenly they were dead."

It is safe to say that the PWH, whose name was Peter Byrne, had more empathy for animals than most in his profession. The experience with the tiger helped convince him that he would have to change what he did for a living. The question was, what would he do instead? He decided that he would help preserve the very corner of Nepal, the 100,000-acre White Grass Plains, where he had guided his clients for many years. Good idea. A man who has hunted game for a living should be superbly qualified to be a game protector.

Peter Byrne convinced the government of Nepal to set the White Grass Plains area aside as a game reserve. That gave it some protection from settlers and poachers, but not as much as turning it into a national park would. Searching for a way to impress on the Nepali government and on others around the world the value of the Plains, Byrne hit upon the idea of making a film about the area's largest inhabitant, a male elephant whose footprint measures 22 inches across and whose height *at the shoulder* is 11 feet—probably the largest Asian elephant alive. The locals call the beast Tula Hatti, "the great elephant."

Tula Hatti is also the name of Byrne's film and of his book. The book's strength is his personality. Put simply, he's a gent you'd like to have next to you in a wildlife blind or sitting around a campfire. He's good company, ethical and knowledgeable, a gifted storyteller.

Peter Byrne has joined the ranks of those who help us appreciate nature by proxy. It would have helped if he had explored more deeply the ironies and ambiguities of his new role.

But *Tula Hatti* is still an unusually good book, written by a man who knows how to keep the reader's interest. Whenever the narrative slows—as when the film crew has trouble finding the great elephant—the story takes off again unexpectedly in other directions. These byways are at least as interesting as the search for Tula Hatti himself.

The author tells an engaging story. He certainly convinced me that the White Grass Plains are worth preserving. And in the end, by using every bit of stealthy PWH woodcraft he possesses, Byrne finally locates Tula Hatti and shoots him. With a video camera, of course.

Massachusetts-based *Roger Warner* is writing a book on the war in Laos.

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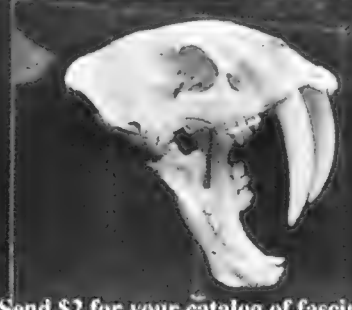

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Additional reading

Gray Ranch (p. 30)

In the Shadow of the Pyramids, local history collected by Ethel Myers and Grace T. Wright, Hidalgo County Chamber of Commerce, 1976

"The Secrets of Gray Ranch" by Bruce Selcraig, *New York Times Magazine*, June 3, 1990

"Quietly Conserving Nature" by Stephen J. Krasemann, *National Geographic*, December 1988

Songs of My People (p. 60)

Songs of My People, edited by Eric Easter, D. Michael Cheers and Dudley M. Brooks, Little, Brown, 1992

Victor Renaud (p. 70)

Gardening: The Complete Guide to Growing America's Favorite Fruits and Vegetables, National Gardening Association, Addison-Wesley, 1986

How to Grow Vegetables Organically by Jeff Cox, Rodale Press (Emmaus, Pennsylvania), 1988

Garden Seed Inventory by Kent Whealy, Seed Savers Publications, 1988

The Gourmet Gardener by E. Annie Proulx, Fawcett Columbine, 1987

Carrots Love Tomatoes by Louise Riotte, Garden Way Publishing, 1976

The Scrapbook King (p. 78)

The History of Printed Scraps by Alistair Allen, New Cavendish Books (London), 1983

Chromos: A Guide to Paper Collectibles by Francine Kirsch, A. B. Barnes (San Diego), 1981

Collecting Printed Ephemera by Maurice Rickards, Abbeville Press, 1988

Glassblowing (p. 90)

Chihuly: Color, Glass and Form by Dale

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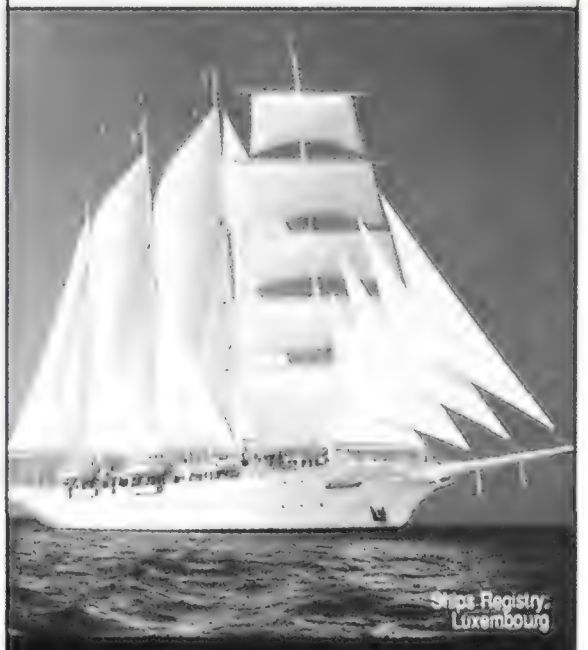

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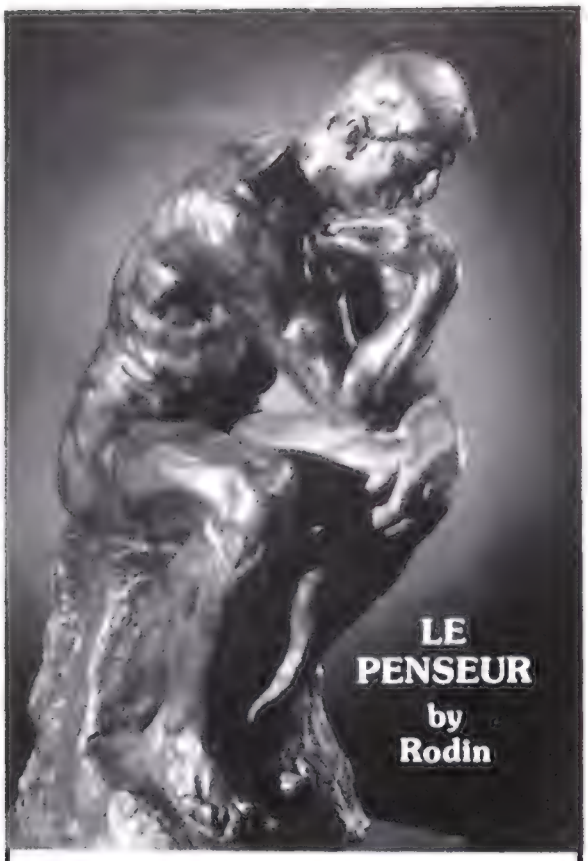

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Chihuly, Kodansha International Ltd. (Tokyo), 1986

Chihuly Glass by Dale Chihuly and Linda Norden, Chihuly (Seattle), 1982

Venetians: Dale Chihuly by Dale Chihuly, Twin Palms Publishers (Altadena, California), 1989

Contemporary Glass by Susanne K. Frantz, Harry N. Abrams, 1989

Glass: A Contemporary Art by Dan Klein, Rizzoli International Publications, 1989

Mountain lions (p. 113)

Great Cats, edited by John Seidensticker and Susan Lumpkin, Rodale Press (Emmaus, Pennsylvania), 1991

Mountain Lion Social Organization in the Idaho Primitive Area (Wildlife Monograph No. 35, December 1973) by John Seidensticker et al., Wildlife Society (Washington, D.C.)

A Critical Review of Literature on Puma (Special Report No. 54, February 1983) by Allen E. Anderson, Colorado Division of Wildlife (Denver)

Soul Among Lions: The Cougar as Peaceful Adversary by Harley Shaw, Johnson Books (Boulder, Colorado), 1989

Cats of the World, edited by S. D. Miller and D. D. Everett, National Wildlife Federation (Washington, D.C.), 1986

The Puma: Mysterious American Cat by Stanley P. Young and Edward A. Goldman, Dover, 1946

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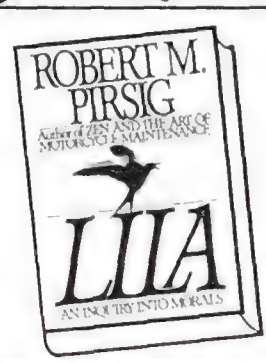

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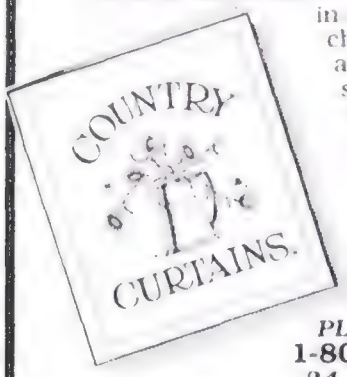

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National Museum of Natural History
Seeds of Change (through April 1, 1993) Exhibition explores changes brought about by the exchange, begun 500 years ago, of five "seeds"—sugar, corn, the potato, the horse and disease—between the Old and New Worlds.
Old-Growth Forests: Treasure in Transition (through April 19) A look at the issues surrounding the future of the remaining old-growth forests.

National Museum of American History
The Boy and His Press (February 28-March 1, 1993) In the 1870s, toy presses were a fad among young boys. Exhibit tells the story of these toys.
Joyful Noise (through March 29) Photographs by Michael P. Smith document New Orleans street music.
Working People (through March 29) Steelworkers and coal miners through the lens of photographer Milton Rogovin.

National Air and Space Museum
Star Trek (February 28-September 7) Show, commemorating the 25th anniversary of the famed television series, examines the historical, political, social and cultural issues of the 1960s that were incorporated in its episodes.
Legend, Memory and the Great War in the Air Permanent exhibition looks at the reality of aviation in World War I.

National Museum of American Art
Gene Davis (through March 1) Installation of nine works by one of America's most innovative 20th-century painters.
Homecoming: William H. Johnson and Afro-America, 1939-1946 (through March 1) Works by the African-American painter from the late 1930s, early '40s.

Renwick Gallery
Albert Paley: Sculptural Adornment (through March 22) Jewelry from the 1960s and '70s by the master of architectural ironwork.

National Portrait Gallery
TIME Covers the War: Personalities from World War II (through May 17) Original portraits of wartime figures commissioned for the newsmagazine's covers.
Collecting Portrait Prints: Washington Print Club Biennial (through May 17) Fifty-four portrait prints.

National Museum of African Art
Purpose and Perfection: Pottery as a Woman's Art in Central Africa New permanent installation features the mu-

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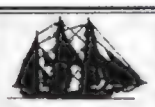

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seum's Central African pottery collection. *The Art of the Personal Object* Permanent exhibit examines forms and functions of utilitarian objects from Africa.

Arthur M. Sackler Gallery
Challenging the Past: The Paintings of Chang Dai-chien (through April 5) The work of one of the 20th century's foremost Chinese painters.
The Art of Painting a Story: Narrative Images from Iran (through May 10) Paintings from the Vever Collection.

Anacostia Museum
To Achieve These Rights: The Struggle for Equality and Self-Determination in the District of Columbia, 1791-1978 (through July 26) Exhibition examines—from a legal-history perspective—the struggle by black people to secure equal rights in the nation's capital.

Arts and Industries Building Experimental Gallery
Etiquette of the Undercaste (February 12-April 15) The Antennae Theater of Sausalito, California, presents an exhibition to aid in the understanding of the homeless.

Cooper-Hewitt Museum (New York)
The Cooper-Hewitt Collections: A Design Resource (through August) Some 1,200 objects chronicle the history and collecting philosophy of one of the most important repositories of design.

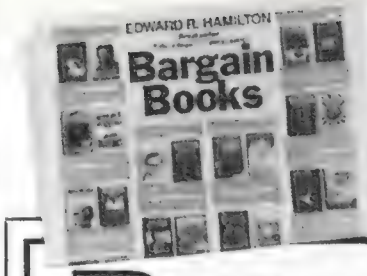
National Museum of the American Indian (New York)
Beadwork: Cornhusk Dolls and Cradleboards (through March 15) The work of Cayuga artist Tammy Rahr.

Exhibition catalogs

Catalogs available currently include:
Martin Puryear (paper, $38.50)
Albert Paley: Sculptural Adornment (paper, $14.95)
To order, send check or money order to Smithsonian Museum Shops, 8308 Cinder Bed Road, Newington, Virginia 22122. Include 15 percent of purchase to cover postage, handling (minimum, $1.75).

Smithsonian on the air

Spirits of the Present: The Legacy from Native America New series of half-hour public radio programs looks at the life of today's native Americans. Programs this month include: "New Cultures for



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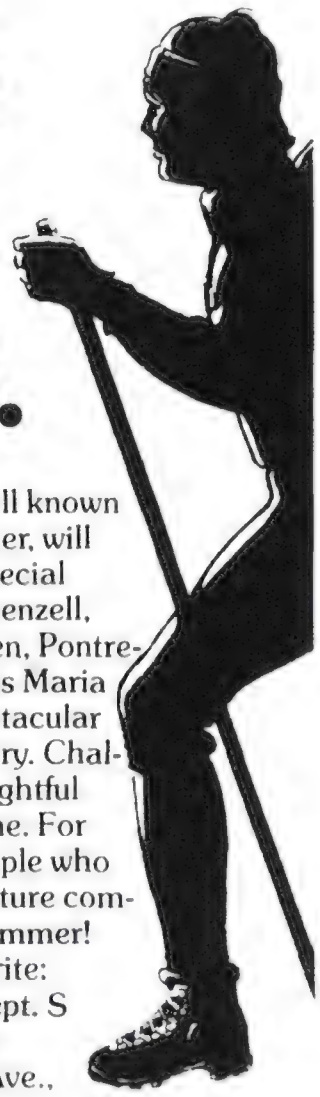

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Smithsonian National Associates

The National Associate Program U.S. and International Events will visit El Paso and Houston, Texas, this month. In El Paso (February 5-9), topics will include aviation and folk art. The Houston program (February 19-22) will feature the art of Alberto Giacometti and the cultural heritage of Southeast Asia.

Associates in these cities will receive brochure invitations. For further information, write or call U.S. and International Events Program, 490 L'Enfant Plaza, S.W., Suite 4210, Washington, D.C. 20560; (202) 287-3210.

Resident Associate Program

To become a Resident Associate, or for fee and ticket information, call (202) 357-3030. February events include:

William Bennett on American Culture in the 1990s (February 18; 8 P.M.) Former "Drug Czar" discusses what has gone wrong in American society.

Hats: A Tribute to Harriet Tubman (February 23; 7:30 P.M.) Atlanta-based actress and writer Saundra Dunson Franks in a one-woman tour de force.

Pro Musicis Series 1992 (February 16, March 15, April 26; 7 P.M.) Performances by outstanding young virtuosos.

Smithsonian Institution Traveling Exhibition Service

SITES organizes and circulates exhibitions to cities throughout the United States and abroad. To sponsor a show in your community, write SITES, Smithsonian, Washington, D.C. 20560. Here are some February exhibits:

- Rapid City, South Dakota (February 22-March 22) *Seeds of Change* (panel exhibition based on the NMNH exhibit marking the Quincentenary), Rapid City Public Library.
- Seattle, Washington (February 22-March 22) *Seeds of Change*, Seattle Public Library.
- Washington, D.C. (February 15-May 3) *Songs of My People*, Corcoran Gallery of Art. See page 60.

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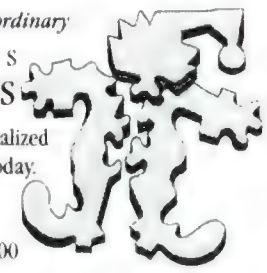

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Highlights continued

Martin Puryear's devotion to craft

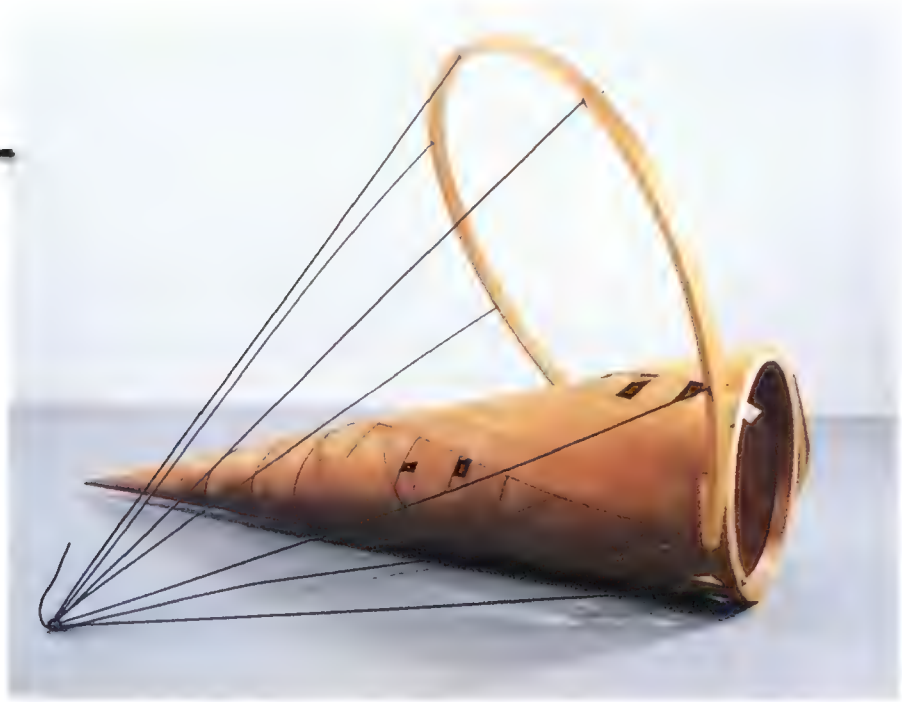
Sculptor Martin Puryear was born and raised in Washington, D.C. He attended Catholic University there, and his first solo American exhibitions took place there. Now a retrospective of his work, documenting the full scope of his achievement from the mid-1970s to the present, is being mounted at the Hirshhorn Museum and Sculpture Garden. Organized by the Art Institute of Chicago, "Martin Puryear" will be on view from February 5 through May 10.

Using such unorthodox materials as rawhide, earth and tar, along with wood and steel, Puryear has created a body of original and compelling sculpture that combines a dedication to craft and the handmade with a Minimalist-inspired fidelity to simple forms. The associations evoked by his work range from the organic forms of plants and animals to the cultures of Africa, Asia, Scandinavia and the Arctic. His singular style melds carving, modeling and assembling for eloquent and eccentric forms that are at once abstract and referential—familiar, yet "rich with the possibilities of the unseen," according to the show's curator, Neal Benezra.

In recent years Puryear has won wide acclaim. He was awarded the prestigious MacArthur Foundation Fellowship in 1989 and in the same year, Grand Prize at the São Paulo Biennial in Brazil. "Martin Puryear" will go on to the Museum of Contemporary Art in Los Angeles and the Philadelphia Museum of Art.
Diane M. Bolz

The original version of *Rawhide Cone*, an early work, was destroyed in 1977; this rendering was done in 1980.

Puryear studied African and Scandinavian woodworking techniques. *Bower* (1980) has nautical feel, linear quality.



In *The Spell* (1985), made of pine, cedar and steel, the process of making is readily evident; staples can be seen.

Maroon (1987-88), looking like something that might have washed up on a beach, is of wire mesh, tar, poplar, pine.

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Arizona in Spring *April 1-9*

Savannah and Charleston *April 3-10*

Jefferson's Virginia *April 10-16*

Rio Grande Rafting (Texas) *April 11-19*

Grand Canyon *April 23-26 or May 7-10*

Okefenokee Swamp *May 3-8* Canoeing.

North Carolina Homes *May 3-10*

Spring Gardens *May 4-10* Delaware Valley.

New York: Ellis Island *May 7-10*

Boston *May 7-10*

Detroit Auto Barons *May 7-10*

Bryce, Zion and the North Rim *May 9-18*

Hudson River Valley *May 10-15*

Sojourn in Sedona (Arizona) *May 21-27*

Southwest Indians *May 26-June 5*

Grand Canyon Rafting *May 29-June 7*

Smoky Mountains *May 30-June 4*

Chicago Architecture *June 17-21*

California's National Parks *June 20-28*

Frank Lloyd Wright's Wisconsin *June 21-26*

Alaska *June 25-July 7 or July 9-21*

Alaska Cruise *June 27-July 4*

Railroading the Rockies *July 10-18 or August 7-15*

Pueblo Indians *July 11-19*

Foreign Study Tours

Red Sea Cruise *March 5-18 or March 14-27*

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Morocco *April 4-18*

Durham (England) Country Stay *April 6-16*

Central Asia *April 12-24*

Dutch-Belgian Waterways *April 13-27*

NEW **Costa Rica Cruise** *April 14-27*

Galápagos Cruise *April 18-29*

Castles and Cathedrals of France *April 20-30*

Oriental Cruise *April 26-May 15*

Countryside Tours *May-October* France, England, Wales, Czechoslovakia, Italy, Switzerland, Germany and Mexico.

Russia's Golden Ring *May 3-16*

NEW **Spring in Kent (England)** *May 7-19*

NEW **Crete, Rhodes and Santorini** *May 7-21*

Czechoslovakia *May 7-22*

Italy Cruise *May 9-25*

Gardens of Northern Italy *May 13-24*

Western Turkey *May 13-28*

Spain *May 13-29*

Denmark *May 20-June 2*

Swiss Country Stay *May 21-June 3 or June 4-17*

Dutch Houses and Gardens *May 28-June 8*

Scotland's Northern Islands *May 29-June 14*

China *June-October* Several tours.

Lake District (England) *June 1-11*

Pyrenees (France and Spain) *June 5-15*

Cotswolds Walks (England) *June 11-22*

Inside Ireland *June 13-24*

Walks in the French Alps *June 14-27*

Turkey Cruise *June 14-30* On the *Sea Cloud.*

Northern Japan and Russia's Far East Cruise *June 16-July 2* For Contributing Members.

Walks in Switzerland *June 20-July 4*

Mongolia and Trans-Siberian Railroad *June 21-July 12*

NEW **Norway Fjords Cruise** *June 23-July 3*

Sweden and Norway *June 25-July 8*

Montreal, Quebec, Ontario *June 27-July 5*

Russia by Train *June 27-July 14*

8th Air Force (England) *July 2-15*

British Isles Cruise *July 5-21*

Scotland by Train *July 11-22*

Danube Cruise *July 19-August 5*

Walks in Japan *July 24-August 7*

Kenya Tented Safari *August 6-23*

Iceland-Greenland Cruise *August 9-21*

Yorkshire for Families *August 10-21*

Elbe River Cruise (Germany) *August 16-27*

Switzerland by Train *August 20-September 1*

Estonia, Latvia, Lithuania *August 25-September 7*

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Smithsonian Tropical Research Institute (Panama) *March 20-26* For James Smithson Society members. Study tropical flora and fauna.

Write to Smithsonian National Associate Program, Washington, DC 20560 or call (202) 357-4700 for tour and seminar brochures.

SMITHSONIAN-STYLE

Civil War at Fredericksburg *April 9-12*

Rome *April 15-27*

Landscape Design *May 3-7*

Inside Congress *May 4-7*

USSR Update *May 6-9*

Civil War in Gettysburg *May 6-9*

The New Astronomies (Tucson) *May 10-15 and May 17-22*

The News Media *May 13-16*

Greece *May 22-June 4*

Southwest Archaeology (Santa Fe) *May 25-29*

Interior Design (New York) *May 31-June 3*

Yellowstone Ecology (Wyoming) *June 1-7*

Creative Writing (Annapolis) *June 7-11*

Judaic Art *June 8-11*

Paris *June 19-30*

Kenya *June 29-July 16*

Arctic Culture-Ecology (Alaska) *July 7-11*

Bali *July 8-22*

Newport Music Festival (Rhode Island) *July 13-17*

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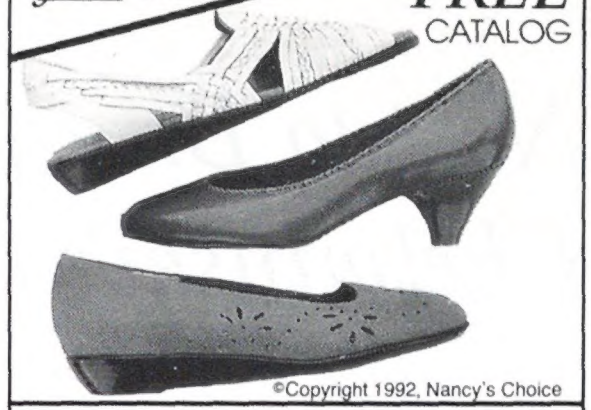

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There it was: they were doing it again. I thought I had pronounced my name slowly and clearly enough, but the receptionist came up with Variant 12-B of the dozens of exotic appellations I have encountered over the years. Nothing particularly exciting or original about this one; I get it four or five times a year, easy. Much more interesting was the guy who went for close to a decade persuaded that my first name was Chet. He was an accountant, too. He'd say, "Hi, Chet," then sit down with me and for half an hour or so go over papers with my name spelled out clear as day.

It's baffling at first, but eventually you get used to it, and it finally becomes something of a game, and you wonder what they'll find next in those three syllables. Observing human creativity at work is one of the pleasures of being born with a difficult name, a pleasure that you boring Browns and Youngs and Norths will never be able to share. You don't know what you're missing.

On the surface—we're being purely objective now, you understand—my name never struck me as being insuperably difficult: Chel-min-ski. Three crisp syllables, bang-bang-bang, pronounced just the way they look. But there's something about a Slavic name, especially one ending in *-ski* (the Polish way) or *-sky* (the Russian way), that panics Americans. Names equally rich in syllabic content will trip from their tongues with the greatest of ease. Any switchboard operator can pronounce Frankenstein, O'Mahoney, Pasqualini, Von Dittersdorf or Okamoto and chew gum at the same time. But give them a whiff of the steppes of Eastern Europe and they melt into terrified stammerers, their brains frozen, everything previously heard erased as soon as they encounter the magical *-ski*.

So it was the other day for Variant 12-B, Joe Minski.

I'm not sure where the Joe comes from, but it is a pattern, so I have to assume that it's the only one-syllable name they can think of after their tape has been erased. About the only Polish name I can think of that people feel comfortable with is Stanley Kowalski, thanks to Marlon Brando and Tennessee Williams, but then they expect us to wear ripped T-shirts and mumble. Thanks a lot, boys. And what were *your* names before they changed them?

It happens all the time, of course. I just recently heard of a Vladimir or Casimir Something-or-other-ski who is now called Matt Conan, and I have grave suspicions about all those Tab Hunters and Rock Hudsons. When I was a senior in high school, a well-meaning teacher seriously suggested I change my name to Chalmers or Chamberlain, and to this day my bisyllabic pal John Neary simplifies life for himself by calling me Cholmondeley and pronouncing it Chumley.

When I was a kid, Chiminski or Shiminski were about as close as my little playmates could come to getting it right, but what could I expect from a band of Colliers, Middlebrooks, Roscoes and Lounsberys? With a name like mine, I might have been from another planet. Now, that was distinction.

In the Army I gave roll-call sergeants fits, of course, and if my company commander in Korea had himself a little bit of innocent fun by dubbing me Chimpanski, I was able to get some of the fun back by the Great Nameplate Ploy. We all wore nameplates then, both the American G.I.'s and the ROK troops stationed in camp with us, our names emblazoned above the left pocket of our fatigue shirts. Like me, the Koreans were invariably trisyllabic in name, beginning with their patronymic and then going on to the "first" names. Most of them were Kims, but there were exceptions.

Like me. I found me a nameplate printer and a tailor in the local village, did a little presto-chango number, and for the rest of my tour of duty became what the Koreans always called me anyway: Cho Min Sik.

I had to abandon my Oriental name when I returned to the States and became a grown-up, but I'm still able to play around a little with my syllables. A few years ago I was in Finland, doing some reporting for a bureau chief in Paris named Milt Orshefsky. Naturally I checked into the Hotel Marski in the capital city because I already had worked out the first lines of the telex I wanted to send to Paris: Pro-Orshefsky Ex-Chelminski, Marski, Helsinki . . .

A few years after that memorable moment in literature, I went on a story assignment to Poland, and in cold, gray, Communist Warsaw received the shock of my life when I learned that, after all those years of amused tolerance of my fellow Americans who mispronounced my name, *I had been mispronouncing it myself.*

It all has to do with the arcana of the Polish *-ch* sound, you see, and the hard *l* and the soft *ł*. Don't ask me why the Poles have two *l*s, but they do. You just have to accept that. The result, I discovered to my amazement, is that my name should be pronounced (are you ready?): Hey-you-mean-ski.

Oh, dear. I can't expect people to even *try* to say that, so now I just stick with the same old three syllables I grew up with, even if they come out Joe Minski or Chet Nucci from time to time. After all, things could be worse. I could be named Zbigniew Brzezinski. Now, there is a guy with problems. Maybe he should change his name to Sam Brzezinski.

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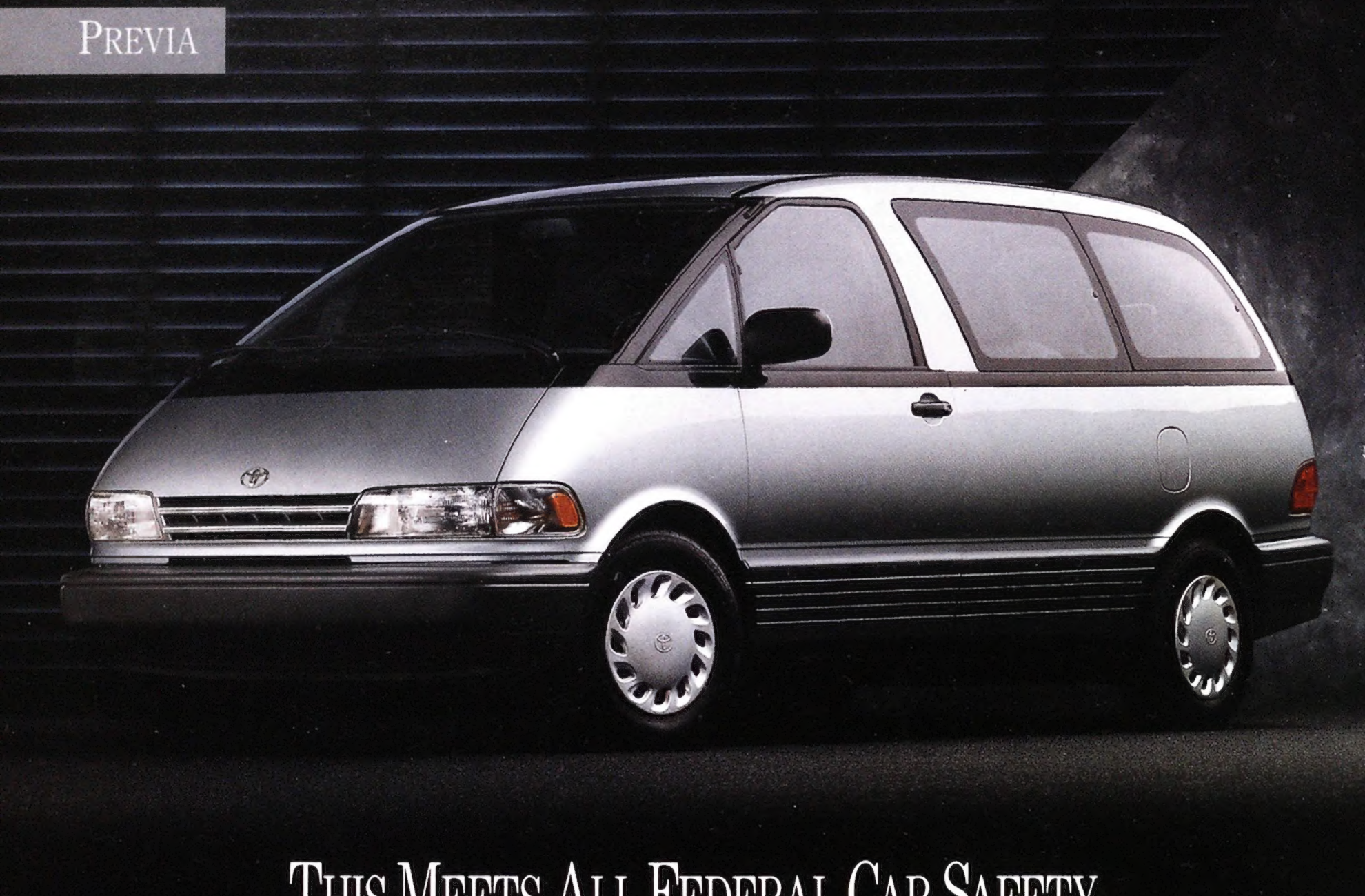

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